

# ORIGINAL ARTICLE-GAMER PROFILING; EXPLORING DEMOGRAPHY OF ONLINE GAMERS IN INDIAN CONTEXT RUNNING HEAD- GAMER PROFILING

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## ABSTARCT

**Background:** In recent years, the idea of gaming has been transformed from outdoor games to digital ones. In this contemporary setting, where millions of players engage in a virtual platform, research is yet to catch up with the exploration into the gamers' life. This study focused on Massive Multiplayer Online Role-Playing Games (MMORPG). In the Indian setting, there is a lack of literature talking about the gamers' defining qualities and the socio-demographic profile. Even though many research focus on the addiction aspect of online gaming, they are yet to understand the scenario of game culture. Therefore, the present study sought to explore and gain an in-depth understanding of the typical profile of an Indian gamer. **Methods:** Two hundred and sixteen were purposively selected from online platform of Face book communities who were regular gamers from New Delhi and Guwahati. Semi-structured survey interviews were conducted with each, and the responses were analyzed using descriptive statistics in SPSS. **Results:** More than half of the MMORPG gamers were male in their early 20s and students in college. It was also found that the gamers preferred playing in a mobile device and all of them had a high-definition smart device with good internet connection. **Conclusions:** Our findings highlight the role of gaming culture in influencing the gamers' engagement in the online world. The socio-demographic profile of a gamer revealed how the game culture in India is evolving from simple arcade games towards more realistic online interactions.

**Keywords:** virtual world, online gaming, gaming culture, game and mental health.

## KEY MESSAGES:

This study explored the gamers' profile that played MMORPG regularly. The typical online gamer was found to be a male which further enhances the fact that female gamer were still underrepresented in online gaming. Another key factor was that socio economic status is important factor in online gaming due to the costs involved in the digital world. It was a significant finding that due to the requirement of a HD smart device and good internet connection MMORPG was mostly played by people of higher socioeconomic status. Among various types of gaming (outdoor, indoor, and computer games) computer gaming or online gaming has become popular in the recent years. Thinking back on our childhood, most of the 90's kids can recall more outside games like badminton or tennis that we used to enjoy as a kid. Eventually, we were introduced to digital gaming gadgets with some popular arcade games which were very popular at that time. Nowadays, children's games are sophisticated and interactive, which are quite popular among children. Games have long been thought of as activities that help players improve their cognitive abilities, social skills, and teamwork. Games have long been known to foster creativity, problem-solving skills, and a sense of self-determination (McInnes & Birdsey, 2013). Digital gaming has recently surpassed traditional

gaming as a result of technological advancements. Unlike physical games, which necessitate athletic ability, internet gaming is open to everybody. People can choose from a variety of games based on their preferences. From the comfort of their couches, today's kids play games on smart devices such as phones and tablets. New computer and video game genres have sprung out as a result of the move from athletics to online gaming. Videogames have become so popular that Hollywood is producing films based on them (Warcraft, Assassin's Creed, etc.). Arcade games, first-person shooters, puzzle games, and role-playing games are all available online. In this particular research, I have concentrated on an online game called as Massive Multiplayer Online Role-Playing Game (MMORPG). Millions of people play massively multiplayer online role-playing games (MMORPGs) on computers, consoles, and mobile devices, which cover a wide range of genres and themes. MMORPGs, unlike early video games, contain a strong social component. Many games nowadays, such as PUBG and Fortnite, need player participation and cooperation. These games are examples of massively multiplayer online role-playing games (MMORPGs) that have attracted a large number of players. If I am asked what MMORPG means, my answer would be "it is like a movie with interactive play". Anyone who is familiar the new movie named Black Mirror; Bandersnatch on Netflix will understand this reference. MMORPGs have incredible storylines, stunning environments filled with magic and fairies, or whatever else appeals to players. In general, it's a sanctuary for gamers with a fertile imagination for the odd. MMORPGs immerse users in a visually attractive, fully immersive fantasy world where they can converse and collaborate with other players to solve difficult problems (Manninen, 2001). These fictitious worlds are frequently referred to as "virtual worlds" or a parallel universe to the physical world in the games. Gamers can choose from a range of avatars or roles supplied by the MMORPG in the simulated space, with the permanence and fluidity of roles varies depending on the environment's design. Each job has its own set of benefits and drawbacks, and many MMORPG systems demand the user to work together to achieve specific goals (Yee, 2007). MMORPG visuals are becoming more authentic, which adds to the game's enticing, gripping appeal and chances of continuous participation. 'Stickiness' or 'flow' are terms used to describe this alluring feature (Wu, Li & Rao, 2008). The concept of cognitive 'flow' predicts an experience that completely engrosses a person (e.g., MMORPGs) and defines the conditions required to maintain such 'flow.' This is common in games, as many people find them enjoyable because they fulfil specific requirements. For example, a want for companionship, a desire to achieve goals, or a desire to avoid stressors are all examples of desires (Yee, 2006). Furthermore, such an immersive setting provides a very delightful and desirable experience, encouraging gamers to return to a particular game on a regular basis (Gladwell & Currie, 2009). MMORPGs, on the other hand, allow users to explore new aspects of themselves and others through a process known as avatar creation. In order to completely integrate into a society, we must take a number of social avatars in daily life, such as spouse, worker, child, parent, lover, and friend. While these jobs may give personal fulfilment, many aspects of the mind remain buried and neglected as we try to adapt to the demands of the exterior social world. Fiction may provide a safe, regulated setting in which players can construct different identities or avatars, allowing certain components of the psyche to express them.

When searching for gaming literature, one can come across a plethora of works on gaming addiction and inspiration. However, the importance of socioeconomic factors in gaming, including such household income, schooling, and access to technology, is frequently under-researched. As a result, potential distinctions in gaming behaviour among various economic and social categories have been overlooked. Similarly, previous research work has focused on regular game time and social media contacts, but has neglected to study the many socio cultural elements that influence gaming behaviours. Through my research, I hope to address these gaps in the literature by delving into the role of education, income, and access to technology, including both the internet and smart gadgets (which are essential to play games). Thus, in addition to gender, I will analyse the gaming industry's socioeconomic and socio demographic aspects (age, reason for engagement, time spent on gaming). Males were reported to invest additional time playing than females. Additionally, it was shown that there is a strong association between income threshold and gaming behaviour, since people require resources to play online games, and a stable paycheque is critical for this (Zhan et al, 2015). This finding implies that particular information, skills, and resources associated with school and job contribute to game playing frequency and level advancement. Apart from that, women are consistently underrepresented in video games compared to men, with male characters significantly outnumbering female ones ((McCullough et al 2019)). It was observed for a while, particularly in the late 1990s and early 2000s, that ladies' game preferences and motivations were attributed to conventional preconceptions (Jensen & de Castell, 2010). These games were like online dress up games or “pink” games, which is a colour that is often stereotypically associated with being too “Feminine” (Kafai et al, 2008). So, most of the game literature on gender focuses on “why” women don't play games rather than trying to understand it as a phenomenon occurring in all genders. Also, our culture has put restrictions on women where combat or shooter games are found to be unfeminine in nature and thus women must not enjoy them. Nonetheless, recent studies suggest that over 45 percent of Western gamers are now female (Entertainment Software Association, 2018). And yet, research on female gaming is few (Lopez-Fernandez et al., 2019), and it has established that men are more likely to be frequent gamers. Thus, rather than being recognised as skilled and resourceful gamers, female gamers frequently face discrimination (Vermeulen et al., 2017), resulting in a female gamer identity contaminated by potential threat and stigma (Matthews et al., 2016). This is exacerbated by the objectification and mockery of female gamers in the virtual world, which is especially prevalent in action games (Lynch et al., 2016). Women are excluded from the gaming culture due to these psychosocial issues. Gender also plays a role in our expression of self and how we form relationships. Thus, apart from understanding gender representation in gaming, it is equally important to understand gender in context of self portrayal and relationship. In our society gender roles are fixed along with the stereotypes attached to them. Despite increased awareness about gender fluidity, we are still assigned fixed gender roles. But as we are getting accustomed to technology, we are also getting real opportunities to create gender fluid selves online (Haraway, 1991). It is also hoped that through cyberspace individuals could escape the sorts of gendered expectations placed on people in everyday life. They can be whoever they want to be, with whatever virtual self they desire (Klein, 1999). This dilemma also has been acknowledged by feminist theories, in which gender roles are generally defined

as a set of psychosocial expectations or rules that arise from society and are understood to be critical in the establishment of what constitutes 'acceptable' and 'unacceptable' behaviour for both men and women in their respective roles.

## **METHOD**

### **Participants**

This study attempted to estimate the socio-demographic profiles of gamers in India, thus researchers decided to use quantitative methodology. Quantitative methodology was used to understand the current gaming scenario along with the demographic characteristics of the average game in India. A cross-sectional interview-based survey was carried out to collect the data. Structured questionnaire was administered through one-to-one interview. Such administration of the questionnaire helped researchers to minimize the error while data collection. Purposive and snowball sampling was used. With gamers being members of a close-knit community snowball sampling was considered to be ideal in assisting with the identification of participants. Snowball sampling is used 'in those rare cases when the population of interest cannot be identified other than by someone who knows that a certain person has the necessary experience or characteristics to be included' (MacNealy, 1999). Total 216 participants were selected for the survey from New Delhi and Guwahati. Among whom 92 participants were from Guwahati and 124 were from New Delhi. To determine if the sample for quantitative phase; an SPSS analysis of sampling adequacy was performed. A Shapiro-Wilk test ( $p > .05$ ) (Rozali & Wah, 2011), as well as a visual evaluation of their histograms and box plots, indicated that both males and girls' scores were fairly regularly distributed. The null hypothesis, "data are normally distributed," was accepted, whereas the alternative hypotheses were rejected.

### **Data Collection & Analysis**

Prior to data collection, sufficient rapport building was done. Respondents gave their verbal informed consent, which were recorded in questionnaire. During the data processing, all the identifiers were removed to ensure anonymity and confidentiality. Respondents also had a choice to quit the interview at any stage of the survey. The manuscript does not contain any patient data. The nature of the study did not entail any other ethical issues. The data was collected through administration of structured questionnaire through one-to-one interviews. SPSS 19.0 was used for data management and data analysis.

## **RESULTS**

### **Profile of Gamers**

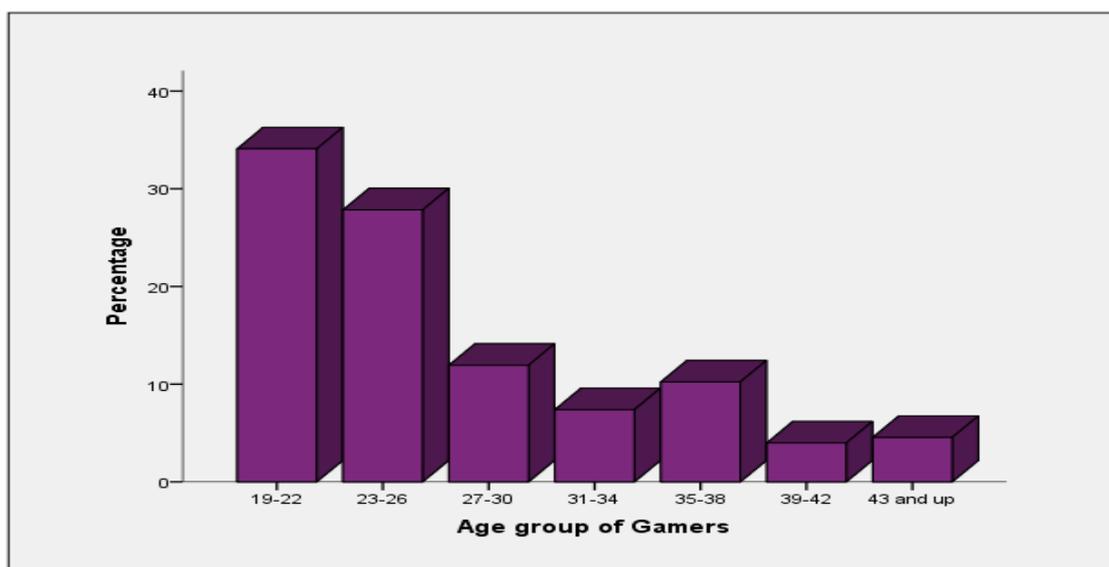
The quantitative data for this study has been collected from 216 gamers from two cities of Assam and Delhi. Below is the socio-demographic profile of the respondents.

**Age Distribution of Gamers (In Years)**

Age Group	Frequency	Percentage
19-22	72	33.1 %
23-26	63	29.2 %
27-30	26	12.9 %
31-34	15	6.9 %
35-38	22	10.2 %
39-42	8	3.7 %
43 and higher	10	4.6 %
<b>Total</b>	<b>216</b>	<b>100 %</b>

**Table 1: Age Distribution of Gamers**

This table clearly states that most of the gamers fall in the age group of 19-22 years which represents 33.1% of the total gamers’ population. This finding is also supported by a study which found that most gamers fall in the age group of 18-34 years (Clement, 2021). In this study also we can see that most of the respondents fall in that particular age category. Another study further supports that the average Indian gamer is around 24 years (KPMG, 2017). The lowest is seen in the 39 and above categories where it lies between 3.7-4.6% only. Below is the graphical representation of the same.

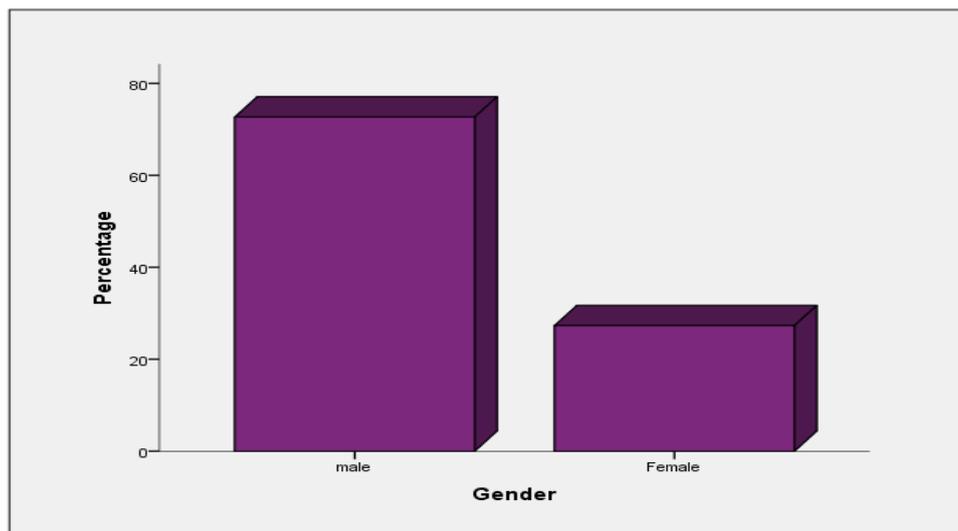


### Gender Distribution of Gamers

Gender	Frequency	Percentage
Male	157	72.70%
Female	59	27.30%
Total	216	100%

**Table 2: Gender Distributions of Gamers**

The total sample size of the survey was 216, out of which 157 (72.7%) were males and 59 (27.3%) were females. It can be clearly seen that the number of male respondents were more than the females. This finding is also supported by other studies (Clement, 2021; KPMG, 2017). The reason behind this discrepancy is that male gamers are more commonly found compared to female gamers. And the male respondents were more eager to participate in the study.

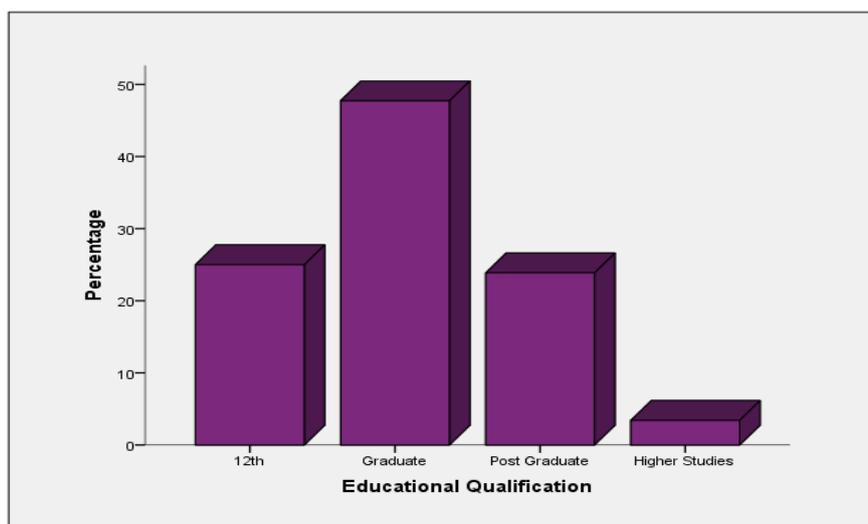


### Educational Qualification of Gamers

Educational Qualification	Frequency	Percentage
12 <sup>th</sup> Standard	52	24.1 %
Graduate	104	48.1%
Postgraduate	52	24.1%
Higher Studies	8	3.7 %
Total	216	100%

**Table 3: Educational Qualifications of Gamers**

The above table shows the educational qualification of the gamers. Out of the total respondents, 48.1% of gamers fall undergraduate category which is also supported by other literature (Griffith et al, 2004; Ruzic et al, 2016). The second highest are 12<sup>th</sup> standard and postgraduate and both are at 24.1%. The lowest of them is people pursuing higher studies who are only 3.7%. It could be because they have comparatively less free time in their hands to spend hours online every day.

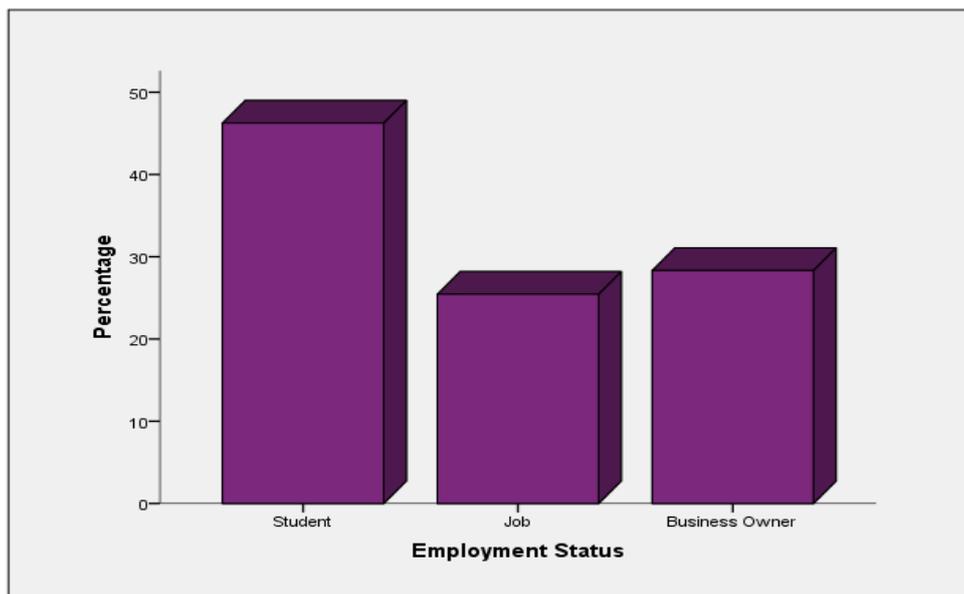


### Nature of Occupation of Gamers

Employment/Occupation	Frequency	Percentage
Student	96	44.4 %
Job Holder	56	25.9 %
Self Employed/Business	61	28.6 %
Total	216	100 %

**Table 4: Occupations of Gamers**

The above table shows that among 216 gamers most of them are students who represent 44.4% (96) of total gamers. This finding is also supported by another research (Zhang et al, 2015; Ruzic et al, 2016). The second highest are the self employed category with 25.9%(61). At last are the saleryman who stand at 25.9%(56). This result may be due to the restriction people face in atypical 9 to 5 job, while the other two categories have comparatively more free time to play.

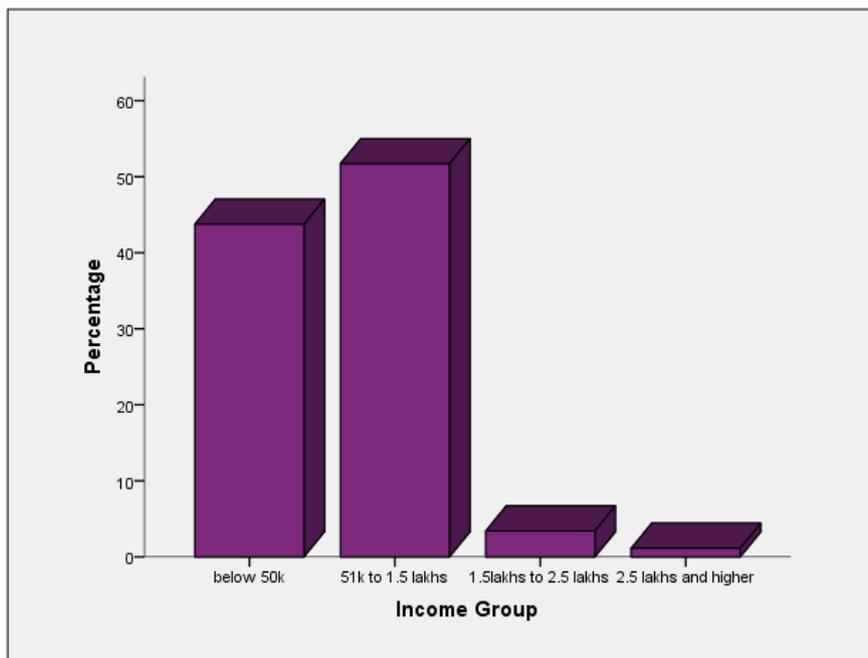


### Income Distribution of Gamers Household

Income Group	Frequency	Percentage
Below 50000	97	44.9 %
51000-150000 Lakhs	111	51.4 %
151000-250000 lakhs	6	2.8 %
2510000 and higher	2	0.9 %
<b>Total</b>	216	100 %

**Table 5: Income Distributions of Gamers**

The above table represents the income categories of gamers/gamers' households. Since gaming requires fairly advanced device and good internet connection, the income needs to be regular and on the higher side. Here the most gaming occurs in the 51000-150000 category with 51.4%. The second is below 50000 with 44.9%. But surprisingly it is lowest on the highest income category of 2510000 and higher with only 0.9%. In a study by Zhang et al (2015), it was pointed out that there is a positive correlation between online gaming and income and family income played a role in the engagement in MMORPG.

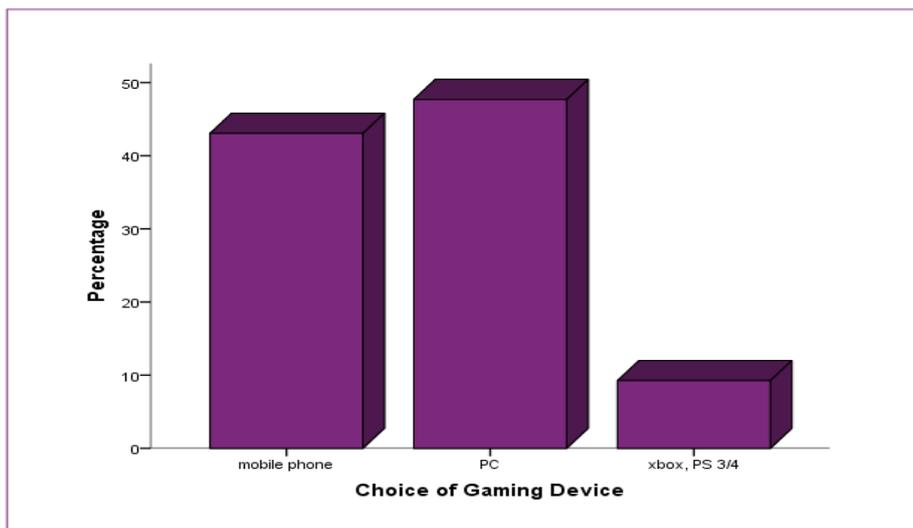


### Device of Choice for Gaming

Device of Choice	Frequency	Percentage
Smart Phone	93	43.10%
PC	103	47.70%
Xbox / Play Station	20	9.20%
<b>Total</b>	216	100%

**Table 6: Device used for Gaming**

The most common device used for gaming according to this study is mobile phone with 43.1% (93). That is the commonly owned device for gaming in this research. The second is the PC or Laptop with slightly higher 47.7% which is used by heavy gamers with high end gadgets. The third one is play station/Xbox which is specifically used for gaming with only 9.2% users in my study. This finding resembles other research which point out that regular gamers prefer PC and mobile gaming as it is more convenient and accessible (Ruzic et al, 2016; KPMG 2017,2019).

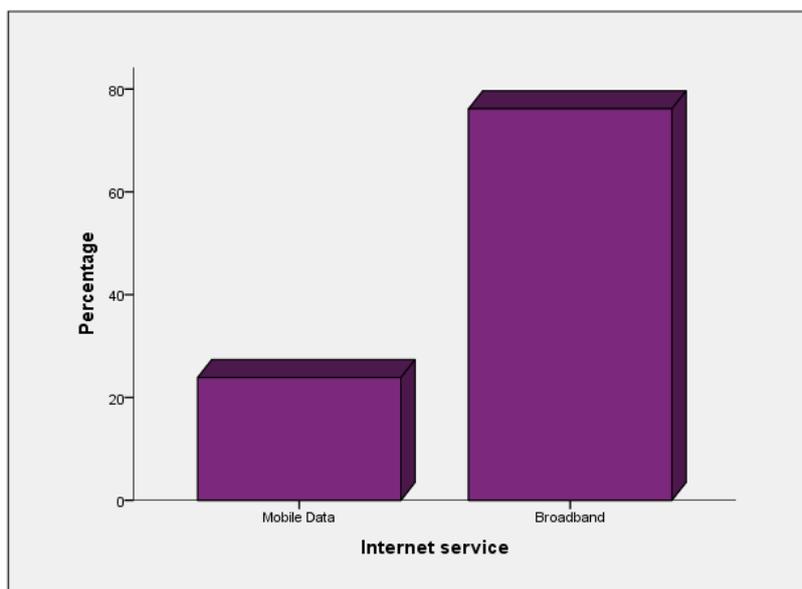


**Choice of Internet Service**

Choice of Internet Service	Frequency	Percentage
Mobile Data/Hotspot	55	25.5%
Broadband	161	74.5%
<b>Total</b>	216	100%

**Table 7: Internet service used**

The most important accessory to consider while gaming is a good internet connection. Some gamers use Wi-Fi, Broadbent while others prefer mobile data. In this research it was found that gamers who play regularly preferred broadband with 74.5% (161) than people who preferred mobile data with 25.5% (55). This result is also supported by a nationwide survey done by KPMG (2017).

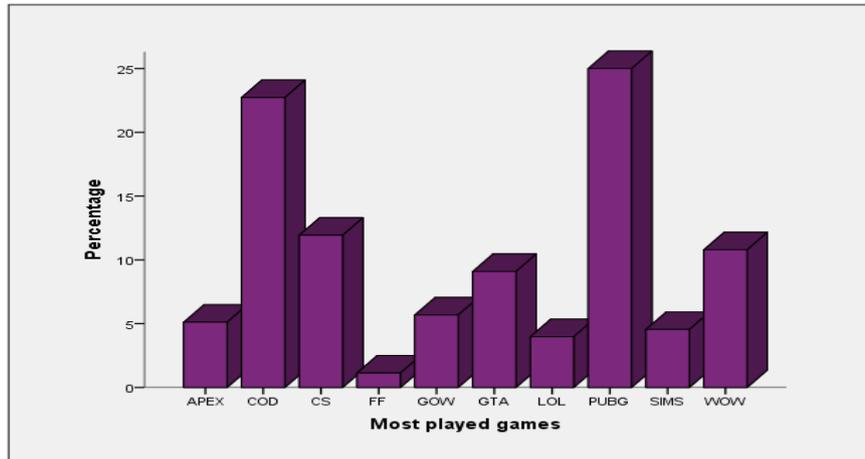


### Most Played Games

Most Played Games	Frequency	Percentage
Apex Legend	11	5.1%
Call of Duty (COD)	52	24.1%
Counter Strike (CS)	25	11.6%
Final Fantasy (FF)	2	0.9%
God of War (GOW)	13	6%
Grand Theft Auto (GTA)	19	8.8%
League of Legends (LOL)	9	4.2%
Player Unknown Battleground (PUBG) or Battlegrounds India	52	24.1%
Sims	9	4.2%
World of Warcraft (WOW)	24	11.1%
<b>Total</b>	<b>216</b>	<b>100%</b>

**Table 8: Most Played Games**

This above table shows that the most played games are PUBG (24.1%) and Call of Duty (24.1%). A few months ago, PUBG was one of the undefeated kings with the fairly high playing record but when the issue with China came forth along with its temporary ban; the popularity seemingly decreased for a time being. Now PUBG is again rebranded as battle ground India. These kind of casual games (PUBG, COD, and Counter Strike) are currently most popular games in India (KPMG, 2021). Rests of the games are popular among people depending on their taste or what kind of RPG they prefer.



### Relationship Status of Gamers

Relationship	Frequency	Percentage
Married	34	19.3%
Single	126	71.6%
Divorced/Separated	16	9.1%
<b>Total</b>	<b>176</b>	<b>100%</b>

Table 9: Relationship Statuses of Gamers

In this study respondents were found to be in three categories of married, single and Divorced/Separated. From 216 respondents 126 (71.6%) were single, followed by 34 (19.3%) married and 16 (9.1%) were single. During data collection it was observed that many people used gaming as a leisure activity for people who are in college. So, it is less likely that they were married. This finding was also supported by Griffiths et al (2004), KPMG (2017) where they found that most of the gamers are young stars that are in their early 20s and single.

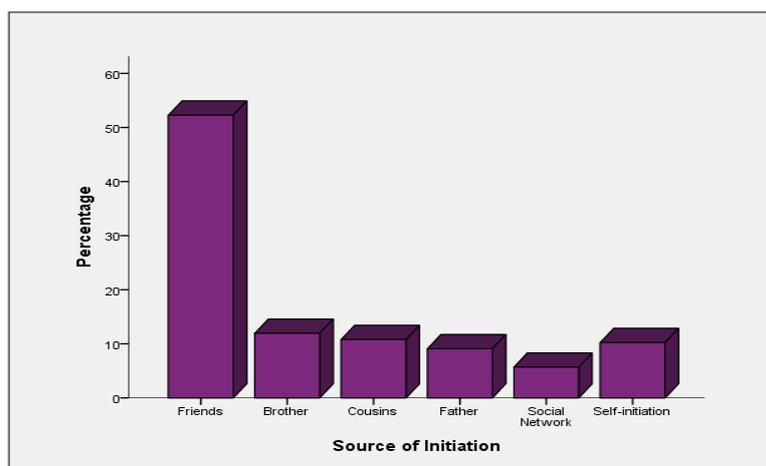


### Source of Initiation of Gaming

Source of Initiation	Frequency	Percentage
Through Friends	110	50.9%
Through Brother	30	13.9%
Through Cousins	22	10.2%
Through Father	20	9.3%
Through Social Network	12	5.6%
Self-Initiation	22	10.2%
<b>Total</b>	<b>216</b>	<b>100%</b>

**Table 10: Source of Initiation**

In the present study, most people started playing games through friends (50.9%). Some other gamers learnt through their elder brothers who play games (13.9%). There were few people who started because they learnt from their cousins or by themselves (10.2%). Since people learn many things from their friends, gaming was also an activity many gamers share with their friends. Gamers' friends, family and peer group play a critical role in discovery and download of a new game (KPMG, 2017) which is similar to the findings of this study.



### DISCUSSION

Online gaming has become extremely popular, especially with the convenience of accessing smart phones. The demography was studied to find out the gamers' profile. In this study, 216 people were interviewed, and nearly two-thirds of them were male gamers aged 19-26. The average Indian gamer is between the ages of late adolescent and early adulthood and is male. Aside from that, less than half of gamers were students with a graduate degree. The factors (Self-concept, Self-esteem, and gaming motivation) showed no significant gender or age differences. However, income and immersion were found to be highly associated. Half of the participants had been introduced to MMORPG through a friend. A third had been introduced

to gaming by family members. The number of players who were introduced to gaming by their families suggests that video games were a common childhood pastime. Participants were willing to pay for MMORPGs. They often had to pay to have access to their favorite games, which they either bought themselves or had their parents buy for them. This internet shopping habit was found to be linked to income, which for half of the study's participants was 50k-1.5k. The findings were further reinforced by the fact that some participants were working adults in charge of their own finances. This could also be an indication that internet games provided more value than DVDs, music, and movies (ESA, 2016). MMORPGs are most commonly played on personal computers, followed by smart phones. On-line gaming was popular among the study's participants (25 hours per week). It appears that gaming is a physically solitary activity, as almost all participants said they played games at home rather than in gaming arcades.

## REFLECTION

Digital gaming has influenced the majority of people across the world, and because of its affordances, it has demonstrated the potential to effectively educate new ways of thinking and behaving (Granic et al, 2014). Because of its participatory nature, players are extremely involved in the games. They also provide opportunities for repeated practice, with incentives provided for engaging in skillful play. Aside from that, online gaming has enormous potential to promote learning in classrooms or professional settings, and this learning potential can be extended to aspects of mental health for better rehabilitation for conditions such as anxiety, stress, and depression, among other things. It should be noted, however, that this study did not investigate clinical or mental health issues such as gaming addiction, for which there is a substantial quantity of literature accessible. Addiction to video/digital gaming is becoming a growing worry among the general public in today's society. Individuals who have difficulty distinguishing between the real world and the virtual world, who place greater importance on events that occur within online games, and who feel more confident and competent in virtual spaces than in real life are all examples of states of being that alienate people from reality and require treatment. Violence and aggression are two more aspects that have been demonstrated to be exacerbated when people are exposed to media that encourages the presentation of such behaviors. Because game spaces are extremely effective learning environments, when these habits are reproduced from video games into the real world, they may prove to be detrimental. Digital games, like other technologies, are neither inherently good nor inherently terrible in and of themselves. It is the way in which they are used that determines their impact on players. As a result, it is still a question of maximizing the positive aspects of this continually expanding form of technology while simultaneously limiting the negative aspects.

Problem-solving exercises, role-playing games, and homework assignments are some of the cognitive behavioral interventions that can be carried out with the help of online gaming. A therapeutic virtual game would provide intense emotional experiences, providing opportunity to practice alternative behavior until it becomes automatic, which might then be applied in real-world settings. Additionally, there are also existing models that demonstrate how leadership, active learning, and collaborative behaviors displayed in virtual game worlds can be directly

or indirectly transferred to the workplace, hence improving job performance and productivity (Xanthopoulou & Papagiannidis, 2013). According to research, people's self-characterizations within virtual games are more accurate representations of their ideal selves than their real-world selves (Bessiere et al, 2007). Virtual worlds also allow for the investigation and experimenting with one's own identity. This could also be an area in which virtual spaces and traditional therapy are intimately intertwined, as in the use of such spaces to better understand clients so that the detected inadequacies can then be addressed within the context of traditional therapy. The use of digital gaming to enhance therapeutic practices has a number of positive implications. However, excessive engagement with this type of interactive technology can lead to habituation into unhealthy patterns of functioning, which necessitates the use of therapeutic interventions to prevent or correct habituation.

## CONCLUSION

In conclusion, the researchers discovered that online gaming has a more profound connotation when it comes to influencing the behavior of players. When a person participates in gaming on a regular level for an extended period of time, their identity begin to collaborate and modify both their real and virtual presence by mutually assisting one another. In general, the findings of the study suggested that online gaming has the potential to influence human behavior in positive ways. However, whether this transformation was positive or harmful was dependent on how the virtual world was used in a regulated manner. The systematic use of interventions such as role plays, graded exposure, and skill building, as well as the use of interactive technology such as online gaming, could all be improved with the help of interactive technology to aid in better mental health care.

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