
Uncharted Impact of Video Games in Betterment of Mental Health

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ABSTRACT

Video gaming has witnessed a growth in notoriety along with its growth as an industry and a broadly adopted practice. The industry has spent decades of being clouded by misconceptions and negative connotations, however, its positive real-life impact has shone through and can be affirmed by the select masses who indulge in this activity. To understand their opinions and experiences better, this research was conducted with the help of a structured survey, and semi-structured interview. The findings of this research were that development of skills which assisted the respondents in their personal and professional lives such as interpersonal communication, team-building, and reasoning was possible to achieve through gaming, if proper time management was followed.

Keywords: *Mental Health Enhancement, Video Games, Skill Development, Positive Real-life Impact*

1. INTRODUCTION

The worldwide struggle to maintain good mental health has been prevalent since time immemorial. Statistics have deduced that the near to a billion of the population suffering from mental illnesses thus far witnessed a further rise of 25% after the world was afflicted with the global Covid-19 pandemic (Nearly One Billion People Have a Mental Disorder: WHO, 2022). Moreover, mental illnesses are estimated to become one of the top three causes of morbidity and mortality by 2030 (Kowal et al., 2021). In times like these, it is imperative to find self-help methods to maintain and enhance one's mental health and capabilities.

An underrated, and often misunderstood method of betterment of mental health is playing video games, an activity whose growth accelerated during and because of the pandemic (The Washington Post BrandStudio, 2022). It is an activity accepted as alternatives to traditional therapeutic practices by working professionals in the field, who have been found to utilize table-top Role-Playing Games into their sessions (Kowal et al.,

2021b). Traditional care occurs less frequently and is often unaffordable for the patients, in cases like these video games can prove to be an adjunctive intervention which provides easier access (“Video Games Could Hold Untapped Potential in Treatment of Mental Illness,” 2021).

Misconceptions surrounding video games existed since their inception. However, the digitization of the globe made video games more popular, and interestingly more notorious as well. As it became part of the diurnal routines of the young masses, it gathered negative connotations by the elder masses, and thus gave rise to stereotypes, such as gamers are only overweight teenage boys who are ‘nerds’ incapable of socializing (Chikhani, 2019) as well as false belief system suggesting that video game players lacked emotional intelligence and expressiveness, and diversity (“Video Games Have Potential to Boost Children’s Intelligence, Study Finds,” 2022). The positive real-life impact of video games is still an unrecognized gem in the gaming industry, even though gaming is a broadly adopted practice. A brilliant study conducted by the UN proves this. The Environment study titled “Playing for the Planet” observes the influence of the gaming sector on pro-environment behaviour in young masses (Thacker, 2019). In fact, video games have been used as communication channels for raising awareness about climate change in more than one occasion, games like Final Fantasy VII with its evident intentions for ecological betterment, and Grow Home with its message that every little effort from individuals can help preserve natural resources on a greater scale, and most importantly, the turn-based strategy game Civilization VI with its emphasis on the consequences of global warming have shown great potential in promoting societal and ecological awareness in gamers (Video Games That Encourage More Sustainable Behaviour, n.d.).

2. AIM AND OBJECTIVES

2.1 AIM

The primary aim of the research project is to bring attention and encourage the masses to indulge in thought provoking, creativity enhancing video games as well as mastering the skill of efficient teamwork.

2.2 OBJECTIVES

The specific objectives of the research were:

1. To study the peaceful team-building games and their real-life impact
2. To study the influence of video games in promoting societal awareness through community driven events
3. To study the effect of gaming on cognitive development
4. To study the self-recognition of improvement in quick decision-making skills, sharpening natural reflexes, and hand-eye coordination in young gamers.
5. To study the empathy enhancing video games and their role is enhancing the gamers’ EQ (Emotional Quotient)
6. To study the usage of video games as coping mechanism

3. REVIEW OF LITERATURE

3.1 Gaming in real-life cognitive development and decision making

Gaming is widely used for entertainment and leisure purposes, but it can achieve a lot more. In the research conducted regarding development of ‘Serious Games’ to train clinical decision-making in surgery (Graafland et al., 2014), the validity of these games assessing the postgraduate training in this field in a fun and challenging way was tested by making 41 participants play the game and then complete a questionnaire to analyse the perceived realism and teaching ability of the game. It had a positive conclusion, with the results reaffirming these ‘Serious Games’ as useful training methods for decision making and cognitive development of the surgeons.

These ‘Serious Games’ also extend to educational simulations which can be used as powerful teaching tools. In new meta-analysis surrounding learning and overall cognitive gains, empirical experimental studies were calculated from a sample size of 46, it was discovered that the various games considered in the analysis differed in results amongst themselves, but cumulatively showed some effects on cognition and behavioural patterns. (Lamb et al., 2018).

3.2 Gaming in Building Emotional Quotient

In recent research studying the correlation of empathy with video games (Wulansari et al., 2020), it was mentioned the ‘empathy deficit’ in the globalized world and that past research was only focussed on negative impact of games, so this research attempted to identify the characteristics of four games that promoted pro-social behaviour in the sample size of 40 participants. The findings were that through interventions and higher perceived immersion, the perspective of the players could be positively influenced. This research drew its further scope towards development of a ‘games for change’ campaign.

3.3 Team Building through Video Games

According to the research conducted on effects of team video games in team performance in organizations (Keith et al., 2018), previous literature did not emphasize on impact of gaming on work-team performance as much as it did on individual learning and recreation, so the researchers conducted a laboratory experiment to examine how to increase team performance by developing rapid cohesion among newly formed teams. The conclusions drawn were that participants of a video game team-based scavenger hunt demonstrated a 20 percent higher productivity than participants who performed traditional team-building activities.

4. METHODOLOGY

4.1 INTRODUCTION TO METHODOLOGY

The problem that this research paper aims to combat is the growing misconceptions around video games since the first video game was created in 1958 (October 1958: Physicist Invents First Video Game, n.d.) and the early video game consoles became popular in 1970s and 1980s (The 8 Generations of Video Game Consoles, 2020). The specific misconception in question is video games being detrimental to the mental health, development and capacity of young masses. A contrast to this can be found in recent studies concerning Cancer Survivors (Comello et al., 2016) which concluded that recreational videogames that assisted in connecting with others supported the survivor’s psychological health. Similarly, a study on impact of video games in mental health recovery in Veterans (Colder Carras et al., 2018) reported increased mood and stress management

skills, as well as adaptive coping. The data was collected through mixed research with use of a structured survey.

4.2 UNIVERSE OF STUDY

The study on the impact of video games on mental health was conducted on members of the Generation Z and Millennials belonging to urban, suburban and rural backgrounds who own and utilize gaming consoles and computers. These generations indulge in gaming considerably more than any other form of entertainment, and utilize it for community engagement and content creation as well as consumption (Newzoo, 2021b). This can be observed specifically in young Autistic populations. It is estimated that 41% of these neurodivergent adolescents spend a majority of their leisure in games in contrast to a 18% estimation in their neurotypical peers. The reason for this can be defined in the lack of social initiation in this population, and the scope of practicing communication and building meaningful conversations provided by gaming (Fay, n.d.). Video games use soft training to create impact on a neurological level to influence the players into perceiving their surroundings and reacting to it in a certain way (Reynaldo et al., 2021).

4.3 STRUCTURED SURVEY

The main method of data collection was through creation of a structured questionnaire with the help of Google Forms which was circulated amongst the sample population. The number of questions were 17 and the sample size was 35. A semi-structured interview was also conducted to gain qualitative knowledge of the respondents' opinions.

5. DATA ANALYSIS AND INTERPRETATION

The majority (61%) of respondents were between the ages of 19-24, followed by respondents between the ages of 25-30 (30%). The percentage of respondents under the age of 18 (6%) and above the age of 30 (3%) were in minority.

The gender ratio was inclined towards males (91%), and females (9%). The respondents majorly belonged to an urban geographic area (85%), (9%) suburban and (6%) rural areas. All the respondents were video gamers.

1. Analysis of the preference in games showed that a majority (62%) of the respondents preferred Multiplayer games, followed by 29% preferring Single Player Games while 9% said they enjoyed all kinds of games. 0% of the Sample chose Virtual Reality and Mobile Multiplayer to be their top preference.

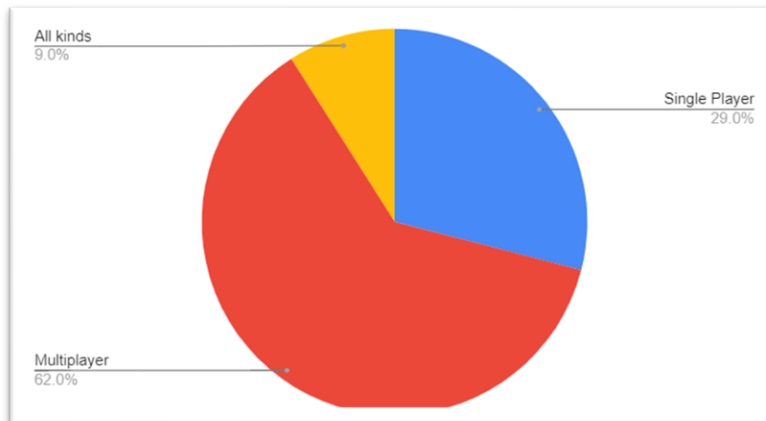


Figure 1: Preference in Types of Video Games

- The average time spent in gaming in a day was found to be 1 to 3 hours in majority of 55% of the respondents, followed by 24% respondents spending 3 to 6 hours and 21% spending less than 1 hour. 0% sample size was found to be spending 6 to 12 hours gaming in a day.

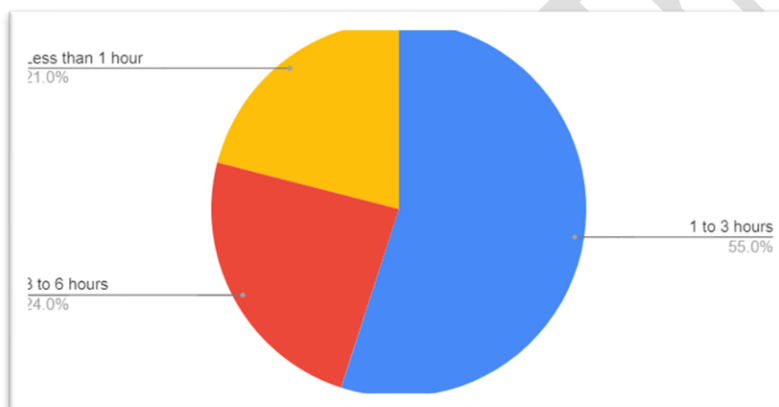


Figure 2: Average hours spent in gaming in a day

- The respondents were requested to give a rating on a scale of 1-5 on whether they observed community driven events in games influencing patterns of improved societal awareness in them, with denotations as:

1- Strongly Disagree, 2- Somewhat Disagree, 3- Neutral, 4- Somewhat Agree, 5- Strongly Agree

Observations: 3% Strongly Disagreed, 3% Somewhat Disagreed, 65% were Neutral, 15% Somewhat Agreed and 14% Strongly Agreed.

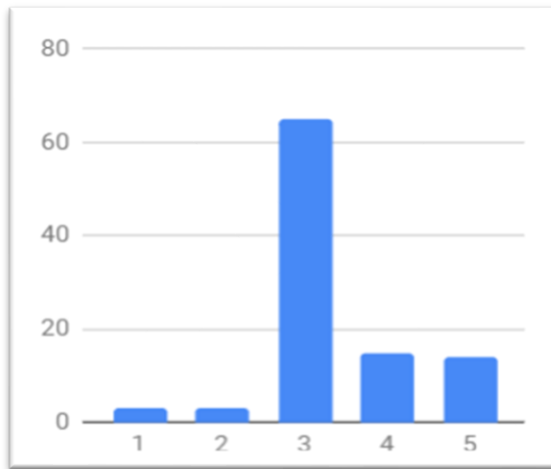


Figure 3: Influence of video games in promoting societal awareness through community driven events

4. The respondents were requested to give a rating on a scale of 1-5 on whether they believe gaming helps as a coping mechanism during the low times in their life, with denotations as:
 1- Strongly Disagree, 2- Somewhat Disagree, 3- Neutral, 4- Somewhat Agree, 5- Strongly Agree

Observations: 3% Strongly Disagreed, 3% Somewhat Disagreed, 6% were Neutral, 57% Somewhat Agreed, and 31% Strongly Agreed.

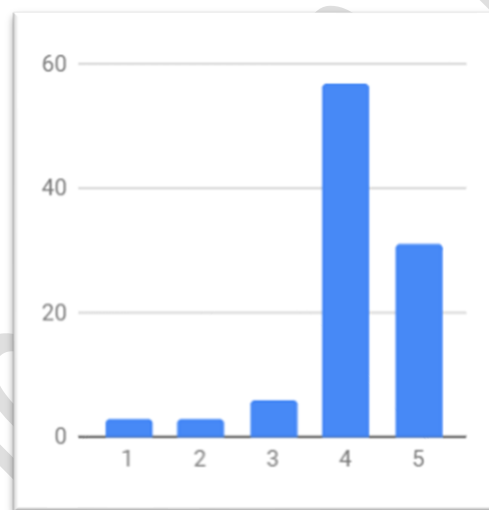


Figure 4: The usage of video games as coping mechanism

5. The respondents were requested to give a rating on a scale of 1-5 on whether they believe gaming benefitted them in development of interpersonal skills, with denotations as:
 1- Strongly Disagree, 2- Somewhat Disagree, 3- Neutral, 4- Somewhat Agree, 5- Strongly Agree

Observations: 6% Strongly Disagreed, 3% Somewhat Disagreed, 50% were Neutral, 21% Somewhat Agreed, and 20% Strongly Agreed.

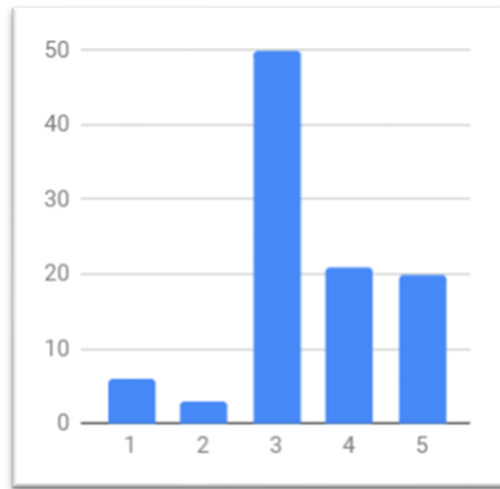


Figure 5: Benefit of gaming in development of interpersonal skills

6. The respondents were requested to give a rating on a scale of 1-5 on whether they believe gaming has improved their collaboration and leadership skills, with denotations as:

1- Strongly Disagree, 2- Somewhat Disagree, 3- Neutral, 4- Somewhat Agree, 5- Strongly Agree

Observations: 9% Strongly Disagreed, 35% Somewhat Disagreed, 20% were Neutral, 18% Somewhat Agreed and 18% Strongly Agreed.

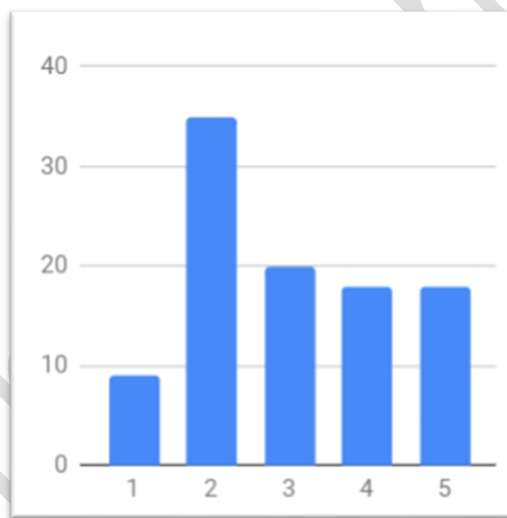


Figure 6: Impact on Collaboration and Leadership

7. The respondents were requested to give a rating on a scale of 1-5 on whether they believe the skills learnt through their gaming experience can be applied to real life, with denotations as:

1- Strongly Disagree, 2- Somewhat Disagree, 3- Neutral, 4- Somewhat Agree, 5- Strongly Agree

Observations: 3% Strongly Disagreed, 3% Somewhat Disagreed, 45% were Neutral, 32% Somewhat Agreed, and 17% Strongly Agreed.

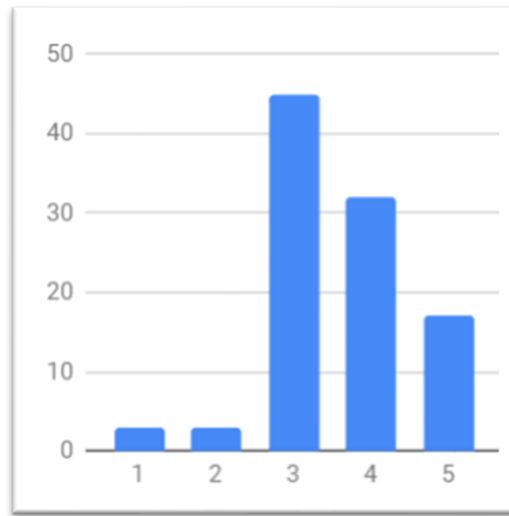


Figure 7: Real life impact of skills learnt through gaming

- The respondents were requested to give a rating on a scale of 1-5 on whether they believe their gaming experience helped them learn to empathize with others better, with denotations as: 1-Strongly Disagree, 2- Somewhat Disagree, 3- Neutral, 4- Somewhat Agree, 5- Strongly Agree

Observations: 3% Strongly Disagreed, 8% Somewhat Disagreed, 51% Neutral, 12% Somewhat Agreed, 26% Strongly Agreed.

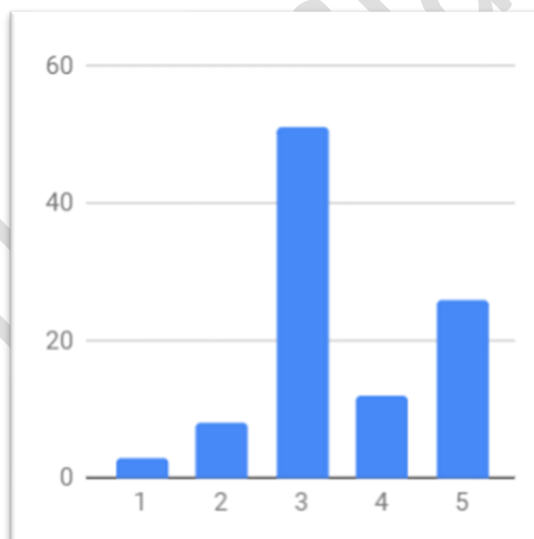


Figure 8: Role of video games in enhancing the gamers' EQ

- Respondents were asked about the various kinds of skill enhancement they observed in themselves through their gaming experience by method of check boxing from a list.

80% of the respondents noticed better hand-eye coordination, 94% observed sharpened natural reflexes, 88% improved in quick decision making, 72% observed better logic and reasoning in themselves, 50% experienced an enhanced retention in learning.

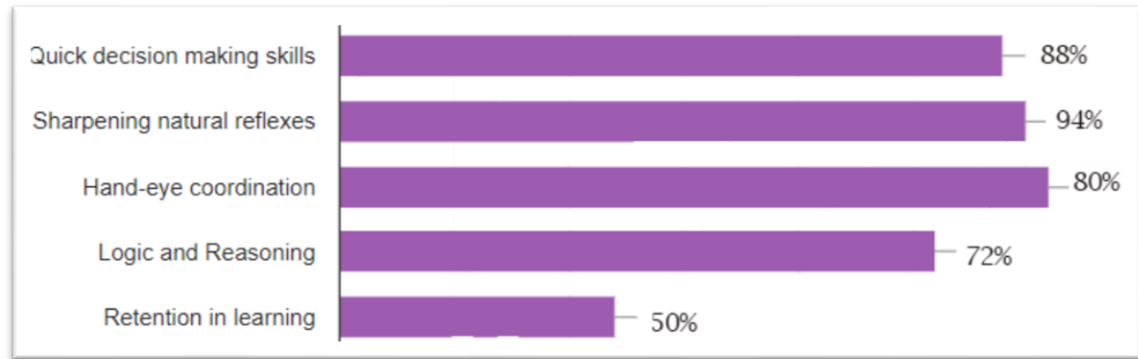


Figure 9: Skill enhancement through gaming

10. Respondents were requested to mention some games that personally impacted them in the enhancement of these aforementioned parameters. The titles that were prominent among the responses were- Valorant, Counter Strike: Global Offensive, God of War, Fortnite, Dying Light, The Last of Us Series, Rainbow Six Siege, Dishonoured, Bioshock, Apex Legends, Warzone, Assassins' Creed, Minecraft, Rocket League, Genshin Impact, Among Us, Yakuza, among many more story, sandbox, exploration, first person shooter, and brain-puzzle games.

6. CONCLUSION

It can be concluded that video games are considerably popular among Millennials and members of Generation Z. This is because the demographic expansion of the Millennials coincided with the inception and spread of gaming consoles (late 1970s-early 1980s). Similarly, the acceleration of the gaming industry that happened during the global pandemic, coincided with the peak of the Generation Z. Further, it was observed, that through investment of a healthy amount of time and selection of the right genre can indeed assist a gamer in improving their mental health, finding a way to healthily cope with a mentally and emotionally challenging time in their life, learn skills that have real-life positive impact.

The research findings were that multiplayer games such as Valorant, Counter Strike: Global Offensive, Rainbow Six Siege, Apex Legends, Warzone, Minecraft, Among Us, help in problem solving, creativity enhancing, strategizing and team building skills and single player story games, such as Yakuza, God of War, The Last of Us Series, and Assassins' Creed help in EQ enhancement and increased societal awareness.

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