# Increasing Influence of Gaming and its Impact

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*Abstract:* The influence of video games on players dramatically transformed gaming from being an entertainment activity into influencing more important areas of life such as education and our social behavior. Studies have been made to show that video games have been influencing players day to day life. Seeing the influence of the games on people we will study whether the games affect the people positively or negatively considering various aspects such as the development of stress releasing skills, making new social bonds, problem-solving skills, also increase in aggression and anxiety. At the end of the paper, we will address questions that have been raised on the increasing influence of the gaming

*Keywords: Gaming, Online gaming. video games.*

## I. INTRODUCTION

The continuous development in the field of technology has given rise to many entertainment technologies. The most popular of these are video games which made a huge impact on our daily lives. The video game culture saw mainstream attention during the late 1970's they were mostly arcade games played on personal computers. Now with the huge spike in the internet usage and gaming industry simultaneously. Gaming has become very popular amongst young teenagers.

Seeing the major influence of online gaming on young teenagers many concerns are raised on the content and addiction of these games. Several types of research are conducted on how this gaming culture has become so popular among young people. We see some popular culture of Pac Man and Flappy bird and other such games such as CSGo. Most of us have stayed up late nights and played a few of these popular games for hours a day. Studies have shown that these games affect the sleeping pattern and study routine and capacity of young students. Online games affect us in both good and bad manor as we have known the change in behaviour of a student after he passes or fails in an exam similarly, we can study emotional changes in students or other people after playing these games for hours and competing in them. Playing games and competing in them has also become a profession like playing cricket and people have been extensively investing time and money in them.

**Seeing that games do influence us we have created this hypothesis**
**Online games affect our daily activities negatively more.**
**Online games affect our daily activities positively more.**

Solving this hypothesis will answer few major questions in this field they are
1. Which age group or sex are affected the most?
2. Do violent games influence teens to be more aggressive?
3. How much time do students spend on gaming?
4. Dose gaming help in increasing focus or makes us more impatient?

Answering these questions will help students understand how playing games affect their mental and social wellbeing. It is also important for teachers and parents to see how gaming affects their children and help them to avoid any addiction or to recover from them. Also, how gaming helps people with a lack of social skills in making friends through the new community that has been formed. As we know the number of people involved in gaming is increasing two folds



Number of active video gamers worldwide - 2015 to 2023
in billions
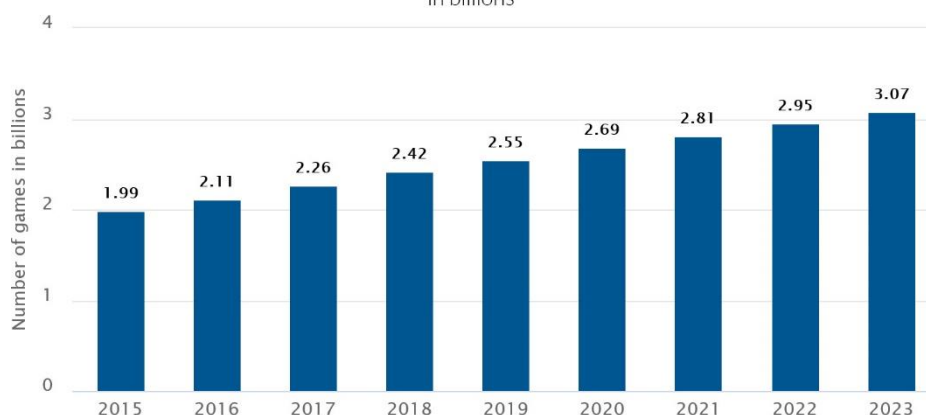
This graph shows an ever-increasing number of people playing games each year which is estimated to reach 3.07 billion people playing games by 2023.

## II. RESEARCH METHODOLOGY

This research paper aims to find the influence of the games and their impact To find this we have conducted an online survey. We have taken a sample size of 149.

Following steps were taken for undertaking the survey: -

- We decided to reach out to people of all backgrounds and not keeping a target of a particular age group.
- We created a Google form for our survey.
- We created a survey to identify how many people prefer online games and why and how it affects them.
- We have also asked the question "How can games be used for stress recovery?"
- Then we circulated the goggle forms through online platforms.
- After collecting the responses, we analysed the data with the help of pie charts, lines, graphs, etc. which are some features provided by google forms.

## III. DISCUSSION AND RESULT

### 3.1 DISCUSSION:

With the continuous growth of technology, today video games like Microsoft Flight Simulator, Grand Theft Auto try to resemble real-world behaviors, attracting many peoples which made the video game industry grow the market size of worth 100 billion U.S dollars world-wide. According to game designer Jane McGonigal, author of Reality is Broken, more than half a billion people play computer and video games for at least an hour each day. With these many peoples playing video games in day-to-day life. Understanding the impacts of playing video games for the long hour is very crucial.

**Evolution of Video Games:**

Video games have been around for decades on various platforms, from arcade systems to home consoles, and mobile devices. Though these video games are now so advanced and found in every household, they got their start in the research lab. Physicist William Higginbotham created the first video game in October 1958, it was simple tennis for two players game on a large analog computer and connected oscilloscope screen for the annual visitor's day at the Brookhaven National Laboratory in Upton, New York. The first commercial arcade video game was introduced in 1971 called Computer Space by Nutting Associates and in 1972, Atari introduced Pong to the arcade's games. In the 1970s and early 1980s, the video game industry had a few notable milestones: the release of space invaders in 1978, the launch of the first third-party game developer in 1979 called Activision, the hugely popular game Pac-man, and the release of the first Microsoft flight simulator game. In the early 1980s, the American video game industry experienced a crash due to various issues. Which led to the bankruptcy of several home computer and video game console companies. In the late 1980s, the Video game home industry began to recover when the Nintendo Entertainment System came to the US, improving the graphics, colors, sound, and gameplay of previous consoles. Releasing games like Super Mario Bros, Metroid which are still around today. In the 1990s there was the first console war between Sega and Nintendo giving rise to popular games like Street Fighter II and Mortal Kombat, which were fighting violent games and, in its response, Sega also created the videogame rating council in 1993 providing descriptive labeling for every video game sold. In the mid-1990s video games leaped to the Big Screen with the release of Super Mario Bros live action movie in 1993 followed by numerous movies based on video games in later years. With a leap in computer technology, in the late 1990s, the fifth generation of video games gave rise to the era of three-dimensional games. In the mid-1990s Sony took a leap and launched the first PlayStation and dominated the video game market and then released play station 2 in 2000 which is the best-selling game console of all time.

In 2005 and 2006, Microsoft's Xbox 360 and Sony's PlayStation 3 started the modern age of gaming. Towards the end of the decade and the beginning of the next, video games started to take boom on social media platforms like Facebook and devices like iPhones, reaching more audiences of casual gaming. Games like Grand Theft Auto San Andreas released in 2004, Open World games increasing the audience. In 2011 a sandbox video game developed by Mojang called Minecraft was released which the best-selling video game of all time till today. It has 200 million sales till today earning billions of dollars. In 2013 the 8th generation of video games began with release of the PlayStation 4 and Xbox One and high graphics games like GTA V second most sold games, God of War, CSGO, etc. In 2016, Sony released the PlayStation 4 Pro, the first console capable of 4k video output. In 2017 online gaming leaped because of PUBG with more than 50 million online players. In the 2020s Nvidia and AMD introduced graphics cards with support for real-time ray tracing. Improvements in technology also furthered the ability to display highly-detailed textures and photorealism with high frame rates. It is projected that by 2021 2.7 billion people – about one-third of the global population will be gamers. With new technologies from virtual reality to artificial intelligence, ray tracing, cloud gaming the future of video games may come close to the real world or may even surpass it.

List of Top 5 Best Selling Video Games:

| Rank | Title | Sales |
|------|-------|-------|
| 1 | Minecraft | 200,000,000 |
| 2 | Grand Theft Auto V | 140,000,000 |
| 3 | Tetris | 100,000,000 |
| 4 | Wii Sports | 82,900,000 |
| 5 | Players Unknown's Battel Grounds | 70,000,000 |

The global video game market size was valued at USD 151.06 billion in 2019 and is expected to grow at a Compound Annual Growth Rate (CAGR) of 12.9% from 2020 to 2027.



U.S. video game market size, by device, 2016 - 2027 (USD Billion)

Source: www.grandviewresearch.com
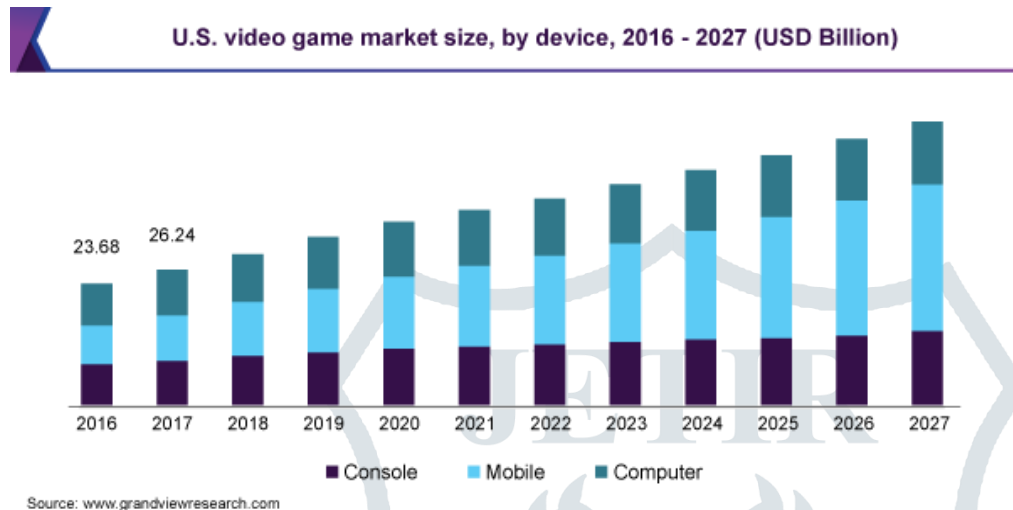
**Physical, Mental, and Social Impact of Video Games on Human Mind**

Video games are a novel variety of recreation as a result of individuals will expertise the virtual worlds and do tons of things that they can't kill the important world. Video games are accessible for over fifty years, and games are developing a lot, and currently needs players to pay a lot of attention to games. Players interact on a awfully deep level physically and emotionally.

Playing for 25-30 minutes on a daily basis doesn't have an effect on USA that ton of abundant} us however playing for long hours contains a lot of effects. Gamers pay over seven hours hebdomadally playing games. simple fraction of Gamers plays at Work. Majority of the players tend to play more than four hours in one sitting. in a very 2018 report, simple fraction of teens within the U.S aged more than thirteen thought-about themselves gamers. Some teens play for 8-10 hours on weekends and that they like playing video games than observance Tv or movies. taking part in straight for such long times has vast physical, mental and social effects on our body. "And such consequences of computer game addiction produce issues in a very many ways, together with wrist, sleep disorders, skin blisters, neck, and elbow pain and calluses. Addiction for long amount could lead on to weakness, symptom or avoirdupois within the hands and even blood clots," – Dr. Moberg. many different case studies have rumored increase in hallucinations, hand-arm vibration syndrome, strain injuries, peripheral pathology

It is relatively harder to decipher impact of games in the social behavior. Several researches found negative impacts of game such as less time spent with friends and family and they face social difficulties among adolescents and young adults. But some research found positive effects if video games are played online with friends, since they are interactive and social, requiring social control and collaboration, teamwork, etc. Which helps to develop our social skills.

According to Psychology Today, it has been shown that playing video games has shown improvement in one's ability to distinguish shades of gray also known as visual contrast sensitivity. And can also improve the eyesight of the visually impaired and increase ability to visually detect the direction of movement. As video games require quick reflexes it helps improving multitasking capabilities and also reduce the mental decline with increase in aging. It also improves hand-eye coordination, lengthens attention spans, and improves both working memory and rapid decision-making abilities. Video games also helps reduce stress, anxiety, and depression. Playing games that requires concentration and brain power playing, quick decisions making, etc., can improve one's quick-thinking skills and make quick analysis and decisions such games are competitive games that require multitasking, teamwork, quick thinking and you also improve your cerebellum long-term. Video games can also improve mental skills, such as problem-solving and logic, spatial skills and fine motor coordination, speedy analysis and decision making, accuracy, logistics, resource management and planning, math and reading skills, cooperation, and teamwork with multiplayer games. While video games have some benefits but playing for long hours also has some consequences.

Many researches in video games and aggressive behavior have focused on violent sports, competition can be a major factor in violent behaviors. Violence scenes alone did not promote aggressive behavior, games that are competitive lead to violence. Its causes mental health-related problems. The most common effects are anxiety, stress, and depression. It is seen people fighting from depression, anxiety and other mental health related problems tend find a escape with gaming and thus develop and addiction. Addiction to video games is mainly caused by the release of dopamine while playing games. The games give a sense of getting

rewards which triggers, your brain and releases dopamine, which gives our mind pleasure by playing games. When dopamine is released, it affects the pleasure center of the brain which is responsible to release stress and make you feel joy. When play games for a longer period of time your brain gets a continuous supply of dopamine and with time, we get used to that feeling and our brain carves for more dopamine resulting in us playing the game more often. That prevents you from enjoying anything that is not as stimulating as a video game and increases your craving for playing more which makes you addicted to video games. The gaming habits correlate with maladaptive coping strategies, negative emotions, low self-esteem, a preference for solitude, and poor school performance. Gamers lack social skills, and have the fear of public speaking. They also encounter many health risks as gaming demands lots of sitting and lots of spending time in front of the screen.

## 3.2 RESULT OF SURVEY

149 people participated in the survey and the results and findings are given below.
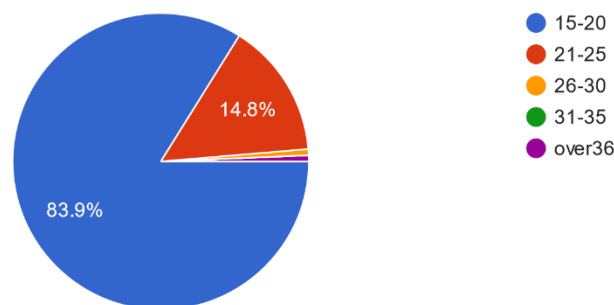
**Sex:**
149 responses



Legend:
● Female
● Male
● Prefer not to say

71.8%
28.2%
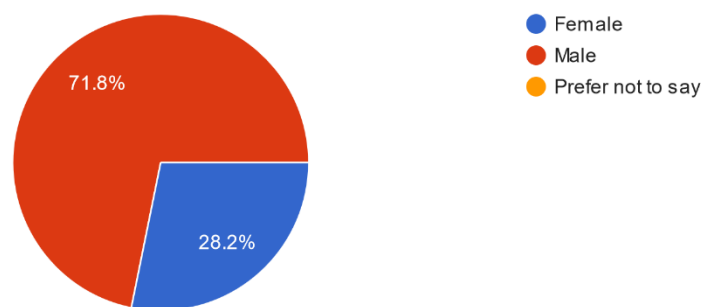
71.8% of participants were males and 28.2% were females.

**Age :**
149 responses



Legend:
● 15-20
● 21-25
● 26-30
● 31-35
● over36

14.8%
83.9%
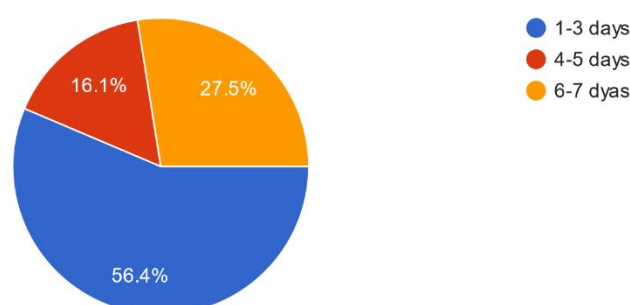
The respondents were mainly of age group 15-20(83.9%) and above 26 was 1.4%. It indicated that the person of these age group plays more games (15-20) as the more respondents are of these age group. The survey does not apply to peoples who don't play games.

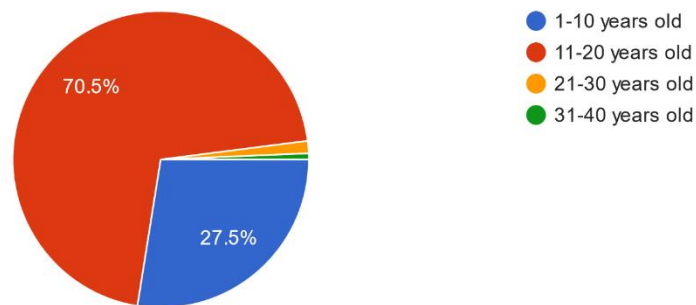**How many days you play games in one week?**
149 responses



Legend:
● 1-3 days
● 4-5 days
● 6-7 dyas

16.1%
27.5%
56.4%

In the survey, it was found that 56.4% respondents play game 1-3 days in a week and 27.5% plays game 6-7 days in A week means daily and 16.1% play 4-5 days in a week.
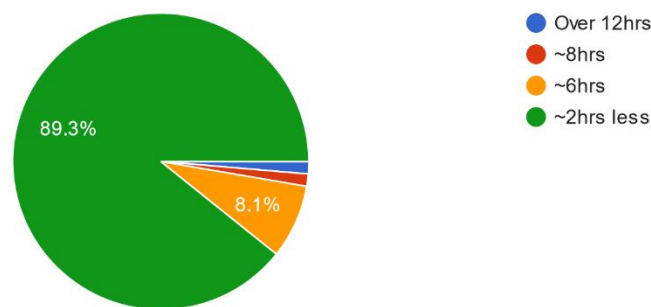
**Which age have you started playing games?**
149 responses



Most of the participants started playing games at the age of 11-20 years old (70.5%) and others 27.5 % at the age of 11-20 years old.

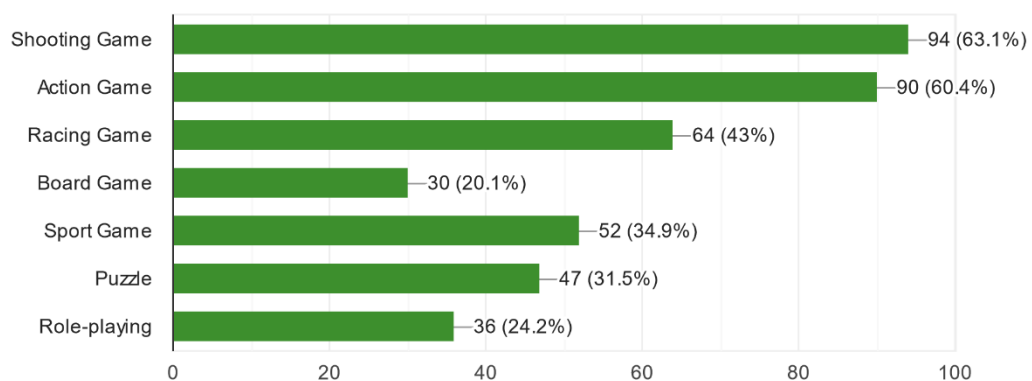**How many hours you spend on a game for one day?**
149 responses



It was a good sign that the respondents spend less than 2 hours in gaming (89.3%) means the people who participated are not addicted to games. But 8.1% of the participants spend less than 6 hours, therefore we can say they are addicted.

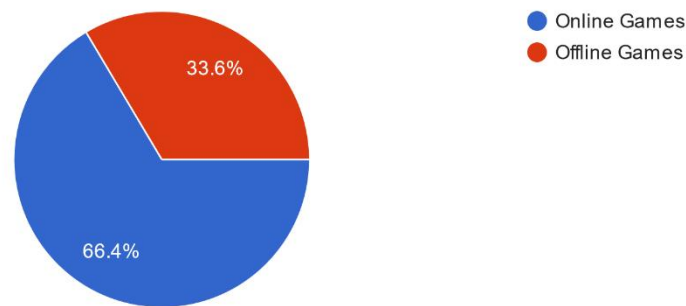**What type of game is your favourite?**
149 responses



The graphs represent that most of the participant's favorite games were shooting games (63.1%), 60.4 % of people played action games, and 43% racing games.

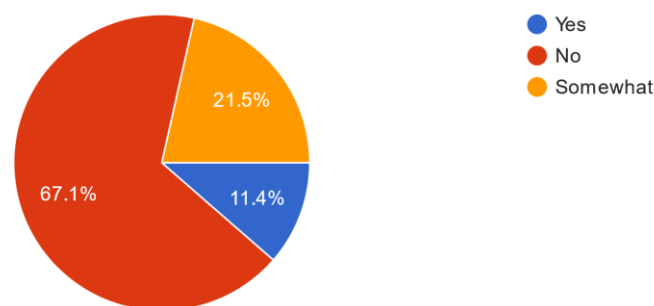**You usually playing online or offline games?**
149 responses



Due to covid pandemic as we cannot out to play offline games so most people are playing online games (66.4%).

**If you played online game to lose your equipment, or and in game's partner has left you, does it affect the daily life and the mood?**
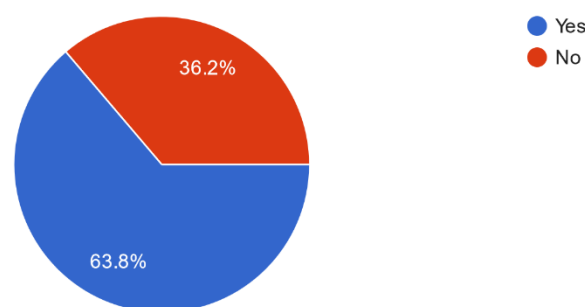149 responses



Yes =21.6, No=67.1% and somewhat=21.5%
As the questions were asked to 149 respondents, 67.1% of people's mood is not affected by the online game due to lose of equipment and the game partner left you. That is good that most of the respondents are not affected by this but they were 21.5% were somewhat affected by these, which indicates that sometimes their mood is affected and 11.4% were there whose mood was affected by the online game.

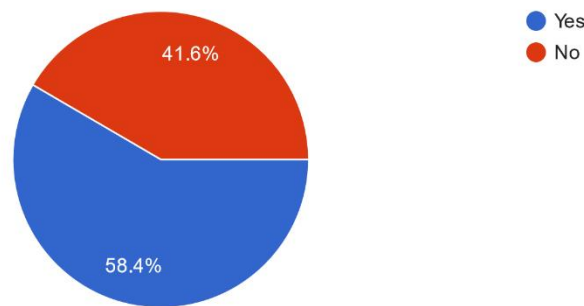**Do certain game elements motivate by setting goals?**
149 responses



As the questions were asked to 149 respondents that game elements motivate you for goal setting, 63.8% say yes and 36.2% say no.

**Can games help you learn special emotional skills?**
149 responses



Legend: ● Yes ● No

41.6%

58.4%

As the questions were asked to 149 respondents that game elements help you learn special emotional skills,58.4% say yes and 41.6% say no.

b) How can games be used for stress recovery?

These were some of the important responses of the respondents.

- Fire out all of your frustrations on opponents rather than taking out on another person

- Just for a mood change, we could play game to refresh ourselves from our busy schedule

- Simple role-playing and puzzle games can distract the mind from stress. But shooting games, point-scoring games can drag the mind in the wrong direction if played at the wrong time.

- Sense of winning in games gives you real-world joy coz it still an achievement

- Helps to suppress negative thoughts

- with everything being online, it is the only platform remaining to play and enjoy somewhat time we get with friends. That's how it reduces most of the stress we get in a day.

- Sometimes we don't have anything to do, at that time it makes us happy

- Many a time it diverts the mind. when we stressed out

- For me, gaming is about being in your virtual world where you can do anything, without stressing about the real world.

- It's a stress reliever, 1-2 hours of playing can put your mind out of the real world and put you to test your skills and IQ(shooting games)

- Playing games help me feel fresh and focused. I generally play after I have studied for long hours and feel bored... Playing cod for some time helps me get back my focus and my sleep is gone by the time I end one game.

**3.3 INFERENCE:**

A survey was conducted via Google Forms and about people, 149 participated in this survey. It is safe to say that more people enjoy online gaming as it provides you a platform to enjoy your favorite games with your friends and also meet new fellow gamers. As the survey indicated that online games help people to enjoy themselves for a time being and leave their worries. Most of the people learned some emotional skills from games and as the numbers suggest the majority of the people didn't get negatively influenced by gaming.

**IV.CONCLUSION:**

From the analysis of the survey conducted gaming has mostly influenced the people of the age group of 15-20. Gaming has had the most of the positively affected people as gaming has not promoted aggressive behavior. and the majority of people indulge in games for less than 2 hours a day. Gaming is helping people to stay more focused and goal-oriented. Generally, people while playing games experience stressful and focus demanding situations and that helps them to deal with stressful situations easily in day-to-day life. Games help to make quick decisions about our problems and it helps to set a goal and it makes mind fresh and reduce stress. E-sports a branch of online gaming has provided people with gaming as a career option.

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