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**ADVANTAGES AND DISADVANTAGES OF PLAYING
COMPUTER GAMES**

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ABSTRACT

This report compares the advantages and the disadvantages of playing computer games. In the first part, the advantages of playing computer games are cognitive advantages of gaming, psychological effects of gaming, and educational benefits of gaming. In the second part, the disadvantages of playing computer games are discussed and listed as Negative effects on sleeping habits and health problems. Finally, the positive and negative consequences are compared to reach a remarkable conclusion. Taking all these into consideration, it results that the advantages of playing computer games outweigh the disadvantages it.

I. INTRODUCTION

Computers have had an important part in our lives since the 20th century. It provides convenience to our lives in many different fields like work and hobby. When we talk about hobby issue we can say that clearly, one of the most popular uses of computers is playing games. Computer games offering us a virtual world, it is a place how people can do everything they want. In addition to this people can see what they are expecting from inventions on the computer games. Computer games are grouped according to personal demands. The library of games on this theme is quite rich. Although games which are not story-based games very popular today, story-based games have a considerable audience. These games find their place on many platforms, especially since they are produced to play on consoles the game industry focuses on consoles.

In the 19th century, there was a game called Vacuum Tube consisting of 8 lamps that was released in 1948. The game was a game about launching missiles, then with the advancement of technology, the first video game Tic Tac Toe was introduced to gamers (Kowert & Quandt, 2015, p.3). It was written for the Cambridge University thesis, the first human-computer interaction, written in 1952. However, these games did not gain popularity, but the space war changed this situation and was written by a group of students in 1961 and shared with many players over ARPAnet. ARPAnet can be called the internet, albeit primitive. It was like the modern internet of the 1960s. Thanks to ARPAnet, Space Warfare became the first popular and impressive game (*Creative Computing Video*, 1983). In 1974, the game Maze War coded by Steve Colley appeared. Maze war has the distinction of being the first online game and it was the first person shooter game using the ARPAnet infrastructure. Two years after the release of maze war, MIT coded the game of Zork, taking

the maze war as an example. After that they started a revolution in the gaming industry in 1978 (Lebling, Blank & Anderson, 1979, para. 1). The multi-user dungeon mud system, which is integrated with the ARPAnet network, was born and It found a very large place in the mud-type market. Mud-type games were developed by mud genre fans without any resources until 1985. In 1993, with the strengthening of processors and the decrease in memory prices, 3D games entered our lives. The game named Doom was distributed by the company called ID software in floppy disk format and besides, with the widespread use of internet access, it has reached 50 million users. Nowadays, 3D games are much popular.

The main purpose of this report is that understanding the most important advantages and disadvantages of playing computer games.

To support the contents of the report, some articles and online sources have been used.

This report restricted with the comparison of advantages and disadvantages of playing games in order to prove that advantages of playing computer games outweigh its disadvantages.

The first part of the report looks at the benefits of video games. The second part explains the harm of computer games. As the result, confirms why the benefits of computer games outweigh their harms.

II. ADVANTAGES OF PLAYING COMPUTER GAMES

Nowadays, computer games have a lot of players and number of the players is increasing day by day. Especially with Corona-19, it has increased a lot. Some people claim that playing computer games is more than just having fun as it has many advantages. In this section, the advantages of playing computer games, constitutively, cognitive, psychological, and educational advantages will be presented.

2.1 Cognitive advantages

All around the world people have so many solutions to improve their cognitive skills and one of these solutions is playing computer games. On the one hand people think puzzle or role-playing games are most efficient games, but on the other hand Engels (2014) claims that people should play shooter games if they want to improve their cognitive skills such as focusing attention (p.69). Hence, it is better to play shooter games such as Counter-Strike: Global Offensive, Call of Duty: Modern Warfare and Halo: Combat Evolved Anniversary instead of playing role-playing games or puzzle games if you want to increase your focusing attention skill by playing computer games. Moreover, focusing attention skill is not only the skill that you can develop. People from every age range can improve their cognitive abilities. For a better understanding, an example can be given. As Engels (2014) states, “Among a sample of almost 500 12-year-old students, video game playing was positively associated with creativity” (p.69). To conclude, playing computer games increases your cognitive skills while you are having fun; therefore, it can be counted as an advantage of playing video games.

2.2 Psychological Effects

When it comes to the effects of computer games, only negative effects come to mind “Indeed, the vast majority of psychological research on the effects of “gaming” has been focused on its negative impact: the potential harm related to aggression, addiction, and depression (e.g., Anderson et al., 2010; Ferguson, 2013; Lemola et al., 2011)” (Granic & Lobel & Engels, 2013, p.66). But computer game approval has many important implications for humans. One of the important implications of playing a computer game is psychological effects. Playing computer games has many different effects on human psychology, one of the most important benefits of playing computer games on human psychology is that it increases patience and self-confidence. Franklin argued that we learn by Chess the habit of not being discouraged by present bad appearances in the state of our affairs, the habit of hoping for a favorable change, and that of persevering in the search of resources (as cited in Granic & Lobel & Engels, 2013, p.66). Another effect of playing computer games on human psychology is increased motivation and psychological relaxation. If we need to give an example about motivation increase, we can show these leveling and award-winning games. Thanks to leveling up and rewarding games, people overcome limited possibilities and challenges and are rewarded or upgraded within the game. With these awards and an increase in level, people gain the joy and self-confidence of achieving something psychologically. Therefore, people who play computer games earn a lot of psychological gains, and they are more determined and confident in their work and education life.

2.3 Educational Benefits

Playing computer games is an activity that is done in leisure time for entertainment or to spend time. Education and play are different concepts, but we can learn something while playing, too. “Since children like games, and often play them in their spare time, giving them a game with educational contents can be a simple way of getting some extra learning into the

daily life” (Soria & Maldonado, 2010, p.169). Computer games are an important platform that can be used especially for the education of children. With computer games, children can understand and overcome complex situations and problems which that they cannot understand through education way. In a study conducted by Granic et al (2013),By allowing the player to control a nanobot that shoots cancer cells, overcomes bacterial infections, and manages signs of nausea and constipation (common barriers to cancer pa-tents’ treatment adherence), the game aimed to teach children how best to adhere to their cancer treatments. (p.73) Moreover, computer games play a major role not only in the education of children but also in the education of adults. This means is that practices and exercises that are dangerous or costly to be done in real life are performed in a much cheaper and non-dangerous way with simulation games. Therefore, playing computer games offers people the opportunity to practice and learn many skills.

III. DISADVANTAGES OF PLAYING COMPUTER GAMES

Even though computer games have some advantages for player and the gamer, it has a few disadvantages as well. The first negative effects on sleeping habits. The second one is the behavioral disorder of the second one is the health problems of playing games for a long time.

3.1 Negative effects on sleeping habits

There is a strong association between video games and sleep disorders, and most literature explored children and adolescents on this topic. Media use is being increasingly labeled as a significant risk factor contributing to sleep difficulties”. (Weaver & Gradisar, 2010, p.189). Moreover, the poor quality of sleep makes it difficult for people to do their daily work “. Screen time has been proven to be negatively associated with sleep patterns by displacing time for sleep.” (Hale&Kirschen, 2018, p.229) Playing games provides insufficient sleep in the person and sleep reduces major practices as a result of Individuals with insomnia problems initially experience lack of attention and fatigue, and later on, lack of attention and fatigue negatively affect the person's quality of life. After a while, people suffering from Insomnia begin to have small dreams while awake, and the person cannot distinguish between reality and dreams. A very important indicator of arousal and inhibition process disorders during sleep is somnambulism. (6.4%) participants suffer from this disease. In four cases, sleepwalking had just occurred, and the other cases had been sleepwalking since childhood.

(Wills&Garcia,2002, p.800). People who play computer games cannot sleep uninterruptedly irregular sleep habits or constant interruption of the sleep process cause anxiety and it takes a long time to treat people. Progressive problems emerged, such as time spent on general computer use, sleep disturbances and poor performance for men. Using computers at night and consequently disrupting sleep patterns, and most anxiety for both men and women, was associated with consequences such as sleep disturbances. (Thomée, 2012, p.1) If sleep

problems go too far, it may result in death, although very rarely. A study conducted by Reynolds supports this idea as follows” The young man, surnamed Chuang, died of extreme insomnia after playing for around 40 hours.” (Ariff&Hasan,2006, p.1) People who play computer games cannot ignore these ailments. There are many more cases that result in death, and it is increasing day by day. As a result, people can eliminate many problems by limiting the time spent in front of the computer.

3.2 Health problems

Nowadays, playing games on the computer or spending long periods in front of the computer cause many health problems. Excessive weight gain, losing mass in muscles, deterioration in bones due to posture disorder, and problems such as mood changes, Games causes extreme nervousness. Playing games also cause vision problems in the person as time is constantly spent in front of the monitor. Naser and Mohran argue that staring at a computer screen for a long time not only causes computer vision syndrome, but also causes high tension in people's eyes. (Naser&Bayed,2017, p.10) Many games contain violence, this violence causes a tendency towards violence in children playing computer, this is peer bullying occurs among young people and children affected by violent games inflict violence on other children, then these children have behavioral disorders and peer bullying increases as a result of this. Injury leads to health problems such as forgetfulness and Alzheimer's in later life.

”. The median age of the study group was 17 years (12-18). Online game addiction of the workgroup scale means score 52.9 ± 18.2 , peer bullying-victim scale mean score 148.8 ± 79.6 , and peer bullying scale bullying-bully scale mean score was 150 ± 83.1 (Taşar&Yalaki,2019,p.336) Taşar supports this idea as follows Peer bullying among children takes place in a large part of the youth, and the affected people are not only children playing violent games. The bullying child usually has only psychological problems such as irritability,

while the person who is bullied has health problems such as heart disease and diabetes in later ages. As the result, playing games at the computer for a long time causes many health problems such as peer bullying, exposure to violence, weight gain, heart diseases.

IV. CONCLUSION

The findings of the report show that there are several disadvantages of playing computer games which cannot be ignored such as negative effects on sleeping habits and other health problems. On the other hand, there are momentous advantages of playing computer games. Cognitive, psychological and educational benefits are serious advantages that can be very important for people. For instance, playing computer games serves people to improve their cognitive skills. In addition to this, children's brains can be developed by computer games. Hence, it is another advantage that affects people. Based on this evidence, playing computer games does not stand out as an astute option to let them side since video games can improve people's skills. This research demonstrates that being in touch with computer games is way better than tossing out the benefits of video games in daily life. Correspondingly, the advantages of playing computer games have bigger impacts than its disadvantages, so the advantages of computer games dominate its disadvantages.

When all these findings are taken into consideration, it could be recommended that people could be informed about the how to play computer games in a way that people can improve themselves and government should make presentations with several examples of positive sides at schools to inform parents about benefits of computer games.

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