

**EXPLORING THE CAUSES OF ONLINE GAME
ADDICTION AMONG STUDENTS IN QUAID-I-
AZAM UNIVERSITY, ISLAMABAD**



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ABSTRACT

The current research on the students is about exploring the causes of online games at Quaid I Azam University, Islamabad. Pakistan is known for its youngest population not only in its region but across the world. Pakistan has 64 of its population under the age of 29. Pakistan, in the future will be one of the youngest countries across the world. The addiction of games among youth is dramatically increasing and the findings of different research has been found that more than 20 of total population of Pakistan is engaged in substantive heavy game addiction and adopted different ways to play and involved in some different activities. The aim of this study is to investigate the effects and causes of online games on students" at Quaid I Azam University. The researcher used the random sampling by collecting data from 100 respondents. Support system of ecological perspectives and the social learning theory helped researcher to know the perception of respondents who are highly involved in game addiction and which factors motivated them to engage in such activities and divert them into different activities. The research has found that 21- to 25-year-old students are most vulnerable section to game addiction. Most of the game addicts are those students that were doing their BS and MSc degree and 8 of the students were those who were enrolled in their MPhil degree. The dire effect of game addiction among student creates the loss of the responsibilities, dignity, and integrity of their character because of the game addiction.

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CHAPTER 1

INTRODUCTION

Gaming addiction is becoming a more popular research issue. In comparison to the previous decade, the number of empirical studies exploring various elements of video game addiction has increased significantly in the last decade (Abedini et al. 2012). Since the internet became a fundamental part of our lives, the presumption that one day everyone would stop meeting in person and that all contact will take place through digital media has become commonplace (Adachi and Willoughby, 2012). The first pioneering studies on the addictive potential of computer games were reported in the 1980s (Soper and Miller, 1983). While this tendency was further explored in the early 1990s (Shotton, 1991), it really took off in the second part of the decade with the publications of Mark Griffiths (1996) and Kimberly Young (1998). Since then, dozens of empirical and theoretical studies have been published in this field. This growth has resulted in the inclusion of Internet Gaming Disorder in the DSM-5 appendix (APA, 2013) and further examination of the phenomenon's conceptualization in the 11th revision of the International Classification of Diseases (Grant et al. 2014) – While it was discovered in both situations that full acceptance of this diagnosis is still premature, the significance of internet addiction as a 21st-century phenomenon has been clearly proven (Agina, 2012).

Playing online games has recently become a part of our daily routine. Obtaining information from a resource was formerly a major challenge. Nonetheless, the internet has made it easier for us to obtain information. This era of the internet is always evolving and affecting us (Ahmadi et al. 2014). Day by day, the internet has developed into a medium through which we may share information, interact, purchase, chat, and play games (Lenhart, 2015). The advancement of internet technology was driven by the development of computers and better networks. People's access to information on the internet became more affordable, resulting in unavoidable changes in their routines (Akinoğlu, 2002).

Young (1996) claims that computer and internet addiction has a negative impact on people's family, academic, and professional lives. It is well known that the Internet can impact negatively on human connections. According to the findings, internet addicts suffer relationship issues and spend less time with others. For the first time, in 1996, Young used the term "internet addiction."

Given the lack of agreement on whether video game addiction occurs and/or if the term "addiction" is the most appropriate term to use, some academics have instead used terms like "excessive" or "problematic" to describe the negative usage of video games (Yellowlees and Marks , 2007). Problematic video game playing is a term used to describe what appears to be the same disorder and/or its effects (King et al. 2011; Salguero and Moran, 2002), online gaming use that is worrisome (Kim and Kim, 2010), addiction to video games (Skoric et al. 2009), addiction to online gaming (Charlton and Danforth, 2007; Griffiths, 2010), gaming addiction on the internet (Kuss and Griffiths, 2011a), and obsessive use of the Internet (Rooij et al. 2010).

1.1 The Gaming Generation

“Anything invented before your fifteenth birthday is the order of nature. That’s how it should be. Anything invented between your 15th and 35th birthday is new and exciting, and you might get a career there. Anything invented after that day, however, is against nature and should be prohibited”. - Douglas Adams

Video games have progressed from Pac Man to photorealistic, hugely populated, three-dimensional settings in the last thirty years (American Psychiatric Association, 2013). Adolescents join online virtual communities (tribes, guilds, and organizations) and play games with people they have never met in real life on a daily basis (Anderson et al. 2010). Large online games create a virtual world in which people can have fun while also experimenting with multiple identities, speaking different languages, and forming new social relationships (Asparouhov and Muthén, 2014).

Games have progressed beyond simple principles like Pac Man's "consume the yellow dots." Massive permanent virtual worlds (World of Warcraft, Lord of the Rings Online, Guild Wars), competitive team-based online shooting games (Counterstrike, Team Fortress 2), and multiuser real-time strategy games (Starcraft 2, Warcraft 3) are now all part of the gaming world. The rapid advancements in computing power and internet connectivity, as well as the falling costs of consumer electronics, are driving these changes. (Bessi re et al. 2007). More people are playing games as a result of increased availability; yet, certain individuals appear to be playing more as well (Bevans et al. 2010). According to a press release from the market research firm NPD in 2008, "...three of the 174 million gamers who personally play games on PC/Mac or video game consoles are Extreme Gamers" (NPD, 2008). Extreme players put in 45 hours every week on average. Two years later, the same corporation issued a press release claiming that this age had risen. The NPD organization estimated in 2010 that the number of severe gamers had increased to 4, noting that "extreme gamers spend two full days per week playing video games" (NPD, 2010).

The video game industry has grown from a casual pastime for a male computer fanatic subculture to a full-fledged worldwide entertainment sector for the broader public (Billieux et al. 2012). The game industry's expansion continues as it constantly seeks for new markets. As prospective new game users, new games target young children, girls, moms, and the elderly (Billieux et al. 2015). The international popularity of the Nintendo Wii (2006), a motion-controlled console system geared at more casual gaming players, is a case in point (Nuttal, 2006).

As a result, at the dawn of the twenty-first century, adolescents are growing up as a gaming generation (Borca et al. 2015). They have no idea that there was ever a world without the internet or video games (Borzekowski, 2007). Because an entire generation is growing up on a video game diet, it is critical to identify and comprehend the potential detrimental impacts of gaming (Brunborg et al. 2014). However, in order to avoid some classic mistakes of oversimplification, we'll look at some background information about video games first.

1.2 Video Games

Video games are always played on a video game system, sometimes known as a 'platform'. Traditionally, home systems have been separated into two categories: personal computers (PCs) and video gaming consoles (Brunborg et al. 2013). A video game console is a compact box that accepts games in the form of conventional cartridges, DVDs, Blu-ray discs, or direct downloads from the internet (Burke et al. 2010). With the exception of mobile systems like the Game Boy, Nintendo DS, and PlayStation Portable, most consoles are meant to be connected to a television (Burt, 2012). Since the commercial debut of the first video game consoles, such as the Magnavox Odyssey, in the early 1970s, gaming on both PCs and consoles has been constantly improving (Caplan, 2002).

In the 1990s, as the internet became more widely used, a lot of PC games began to use it for online gaming (Caplan, 2005). As a result of these changes, a wide range of contemporary gaming genres have evolved to incorporate the new online multiplayer options (Caplan, 2007). First-person shooters, such as Counter-Strike (1999), and real-time strategy games, such as StarCraft, are examples (1998). However, the several newly-emerging game genres that were wholly built on online and internet-enabled play, such as Unreal Tournament, are as fascinating (2000). The emergence of persistent virtual worlds like Everquest (1999), World of Warcraft (2004), and several minor internet browser-based games are notable examples (Caplan et al. 2009).

These advancements in internet-enabled play have now migrated to the current generation of console games: each of the three major console systems (Xbox 360, PS3, and Wii) as well as the two handheld platforms (PSP and DS) now includes online capabilities via wireless internet access (Carli et al. 2013). Multiplayer gaming, as well as the download of new game content and even whole games, is all possible (Chambers et al. 2003).

Mobile phones and personal organisers, in fact, have advanced to the point where they can now run more than simple offline games (Chang et al. 2014). Apple's iOS devices, such as the iPhone 3G from 2008, and Google Android-based

phones (with their large touch screens, good sound, and integrated download) are both potential video-game marketplaces for additional programs, or 'Apps' (Chan, 2010). These developments have created a new industry for mobile gaming that is rapidly growing and will definitely continue to grow in the future (Charlton, 2002).

Because there are so many various ways to play games and the nature of gaming varies by mode, it's crucial to think about the mode of play when studying games (Charlton and Danforth, 2007). Aside from the manner of play, it's crucial to remember that there are a variety of game genre (Lee et al. 2007; Wolf, 2005). We're regularly told that we're playing an "online first- person shooter" or a "massive online role-playing game" in game reviews. In certainty, some systems are more suited to certain game genres than others (Chen, 2012). Platform jumping games like Super Mario, fighting games like Street Fighter, and other direct action games have traditionally been linked with console systems (Chen and Tzeng, 2010). PC games, such as Real Time Strategy (RTS) games, are usually lengthier and more complex (Chérif et al. 2014). The playing field has somewhat leveled over the last decade.

However, while no successful console-based MMORPG has yet appeared, the new genre of Massive Multiplayer Online Role-Playing Game (MMORPG) has gained a firm grip in the PC gaming market (Choo et al. 2010). According to its producer, Activision-Blizzard (Blizzard Entertainment, 2008a) the most well-known MMORPG is World of Warcraft, which was released in 2004 and has over 10 million paying subscribers worldwide. The game is constantly being updated, resulting in expansions such as the Burning Crusade, Wrath of the Lich King, and Cataclysm, which will be released soon.

1.3 What is video game addiction?

Video gaming is a popular hobby in the Netherlands, according to previous IVO research, notably the Monitor Study Internet and Youth (Cohen and Hoberman, 1983). Over 70 of youngsters aged 10 to 15 play games on occasion, with 40 of

adolescents participating in an online multiplayer game (Rooij and den Eijnden, 2007). Online gaming, in particular, is time-consuming and frequently replaces other hobbies such as watching television, sports, or socialising in person (Bainbridge, 2007). Scientists and health care professionals are increasingly seeing that some gamers take their gaming passion to dangerous levels (Griffiths and Hunt, 1998; Lemmens, 2006; den Eijnden et al. 2007; Rooij and den Eijnden, 2007). According to research, gaming can be extremely disruptive to school, job, and 'real-life' social interactions for some people (Chappell et al. 2006; Grüsser et al. 2007; Wan and Chiou, 2006).

This type of behaviour is commonly referred to as "video game addiction" in everyday health care and is regarded seriously by addiction treatment doctors (Cole and Griffiths, 2007). In fact, most Dutch addiction clinics often see young men who claim to be addicted to video games (Meerkerk et al. 2009). Following a disturbing 2007 episode of the Dutch television show *Zembla*, lawmakers and policymakers have debated the issue of 'game addiction'. The Dutch Minister of Health, Welfare, and Sports was asked to give his government's view on the matter. In his statement, he confirmed the seriousness of the problem, saying,

"...certain games are intended to bind people to the game and encourage frequent and extensive gaming sessions "This is an ominous signal" (Klink, 2008).

While the general population has a good sense of what "game addiction" means, coming up with a scientific definition of the issue is far more difficult (Davis, 2001). 'Game addiction' does not have an official diagnosis (Desai et al. 2010). Fortunately, Robert West provided us with a generic explanation of addiction:

"Nowadays, the term 'addiction' is applied to a syndrome at the heart of which is decreased control over a behavior, and this lack of control is causing significant harm. The fact that there is harm is significant because addiction would otherwise be of little interest" (West and Hardy, 2006).

In terms of video gaming, this means that 'addiction to video games' is broadly defined as a loss of control over play that results in severe harm.

When referring to game addiction, the current thesis uses this broad meaning unless otherwise stated (West and Hardy, 2006).

Scientists are still divided on whether or not it is necessary to classify problematic gaming as an addiction (Desjarlais and Willoughby, 2010). In example, although some academics urge for the creation of an official diagnosis for video game addiction, others argue against it (AMA, 2006; Block, 2008; Council on Science and Public Health, 2007), others contend that the concept of video game addiction is founded on media sensationalism rather than scientific realities (Wood, 2008a, 2008b). Some people believe that game addiction is just another term for 'high involvement' (Charlton and Danforth, 2007) or that it's just a symptom of a deeper, more serious psychological issue (Shaffer et al. 2000; Wood, 2008b). Furthermore, it appears that the available empirical evidence is insufficient to draw clear conclusions about 'game addiction' (Council on Science and Public Health, 2007).

1.4 Massive Multiplayer Online Games

People are starting to use the Internet in greater numbers these days (Domahidi et al. 2014). Simultaneously, online games have grown immensely popular among the younger generation, resulting in the global spread of online gaming addiction (Iowa State University, 2011). Online gaming, according to recent studies, has become one of the most addicting Internet hobbies to date (Wan and Chiou, 2006). The thesis is interested in understanding the reasons why young people begin to play online games, as well as how playing such games affects their everyday lives and activities, based on known research. According to data acquired from Pakistan's Official Gaming Website (2019), the market for computer and video games has risen and continues to grow at a rapid pace throughout Asia, including Pakistan (Durkee et al. 2012). This rise has been seen to reach and surpass around 375 million USD during the last three years. Despite the current recession, the gaming sector has remained resilient, with game sales growing in 2019.

In recent years, computer games have become a very popular leisure activity among children and adolescents (Durkin and Barber, 2002). In fact, based only on popularity, online gaming has a higher age of 'favorite' votes among young people than ice hockey and football combined (Durkin and Blades, 2009). The Internet has numerous advantages, as it not only serves as a source of amusement, but also as a valuable professional resource for business, communication, and education (Eaton et al. 2012). However, with all of its benefits, the Internet has some disadvantages (Entertainment Software Association, 2015).

Although the Internet has the potential to be extremely beneficial, it can also have a significant negative impact (Fackler, 2007). The Internet serves as a facilitator for some people who play online games (Faulkner et al. 2014). It's utilised to fuel an addiction that, by definition, puts a strain on one's daily routine, work, and personal relationships (Ferguson et al. 2011). Online games may have significant negative consequences, particularly in the lives of students, according to a report published on the Science Daily website by Syracuse University (2017), by causing distraction and interfering with important out-of-game life actions such as academic performance, health, and social life. Online games shall be referred to as "Massive Multiplayer Online Games," or "MMOG," for the rest of this thesis (Festl et al. 2013; Fisher, 1994; Floros and Siomos, 2012).

While video game production may not be covered in the mainstream media, it has been going on in Pakistan for over two decades (Furman and Buhrmester, 1985). Companies began building game consoles, such as the Dreamcast and Xbox, with online connectivity in mind during the early 2000s (Galea et al. 2010). World-famous game producers such as Sega, Disney Interactive, and Zynga, among others, have outsourced their work to game development studios in Pakistan's major cities. Gamers could now buy games directly from online stores and shops like PlayStation Network and Xbox Live Marketplace, leading

to considerable advancements in the following decade (Gentile et al. 2011). The attractiveness of video games has only seen an increasing trend since (Greenfield and Yan, 2006). However, due to a lack of experience, foreign competition in outsourcing, and the country's poor reputation, gaming studios in Pakistan were unable to keep up with the demand.

The game development industry in Pakistan is on its way to become an important sector in Pakistan's future. However, cultural lag and sluggish internet speeds aren't the only challenges the industry faces. While video game technology took some time to reach Pakistan in the early 2000s, it appears that Pakistani players are not far behind in today's gaming industry. According to Newzoo, the Asia-Pacific region, which continues to have the highest growth in video games, accounts for 55 (1056 million) of the \$159.3 billion industry's consumers. According to unpublished estimates by the IGDA Pakistan (International Game .Developers Association), the game development sector employs around 8,500 people in Pakistan and generates \$25 million in income. A blossoming esports culture can be seen on the horizon, with game developers springing up all over (Griffiths et al., 2014).

1.5 Statement of the Problem

Video games and online games are made to keep kids engrossed for hours on end. When kids play video games, they often feel a sense of power and accomplishment. They have little financial independence in the real world and are stuck in the difficult transition between childhood and adulthood. They can avoid reality by playing games. In a world where people have little influence over their surroundings, a video game allows them to drive their own car, create their own character, and defeat numerous fights. Video games provide a sense of excitement to the inactive child. When confronted with a new obstacle in a game, some children experience an addicting adrenaline surge. Most games also have a variety of skill levels to entice the player in. The gamer receives a reward and a sense of accomplishment as each new level is completed. Massive multiplayer online role-playing games (commonly known as MMORPGs) are particularly addictive.

These games require players to do tasks in order to progress, and they frequently require players to collaborate as teams in an online forum. Players must attend missions that are scheduled. Some parents believe there is no damage in their children playing video games because the risks aren't always obvious. Your youngster will have less time for homework and interacting with friends if he spends more time in front of a television or computer screen. They're also more sedentary, which can contribute to health issues.

When a gamer plays an online game more regularly and for longer periods of time, it can have long-term consequences for them. Due to their online game addiction, gamers have claimed relationship breakdowns and divorce. Long-term online game addiction can have long-term detrimental health consequences for the gamer. Gamers become melancholy as the virtual and actual worlds diverge, and they experience confused emotions as a result.

The blurring barrier between the actual world and the virtual world might lead to suicidal thoughts among gamers. Gamers are often hesitant to seek assistance because they are embarrassed. They're embarrassed that the game has so much

power over them, or that they've gained weight from sitting at a computer all day. They are ashamed that an online game has taken control of their lives.

1.6 Objectives of the Study

1. The goal of this study is to determine the frequency and types of games played by Quaid I Azam University students.
2. The main goal is to figure out what causes students to get addicted to computer games while also learning more about computer game addicts, social norms and everyday activities.

1.7 Significance of the Study

The result of this study is significant to the following groups:

Students: This study may provide students with information on how online gaming influences their lives.

Teachers: This study could assist teachers identify students who are addicted to online games so that they can help them from being addicted.

Family: This research is essential for families because it may help them determine whether their children are addicted to online games.

Future researchers: It would be beneficial to future researchers that are interested in this research. It will be their starting point and background for their research.

CHAPTER 2

REVIEW OF THE RELEVANT LITERATURE

Video game activity is a common aspect of daily life for most adolescents, providing amusement, social opportunities, or simply filling time (Hawkins, 2012). The majority of video game research has focused on negative outcomes, such as the effects of violence exposure (Anderson et al. 2010) or excessive/problematic gaming (Ferguson, Coulson and Barnett, 2011), but Games may also be linked to good aspects of youth development (Adachi and Willoughby, 2012). Individual and game characteristics interact with parental, social, cultural, and other mediators and moderators to influence both positive and negative effects. Video game play, including extensive or highly engaged play, may satisfy many developmental needs of adolescence, such as peer affiliation and self-affirmation, with individual and game characteristics interacting with parental, social, cultural, and other mediators and moderators to influence both positive and negative effects (Kutner, Olson and Hertzog, 2008). The inclination in public health and addiction research to label heavy or excessive media usage as harmful may fail to discern between adaptive and maladaptive patterns of use, resulting in moral panic (Tzavela et al. 2015). As more adolescents participate in online gaming with their peers as well as strangers (and potential friends) from all over the world, it's more important than ever to consider the potential risks and harms of gaming from a developmental perspective that takes into account the social and media contexts in which games are played (Ferguson et al. 2011; .McHale, Dotterer and Kim, 2009).

We decided to explore the quantity and nature of the impacts in order to appropriately complete the research goal. Students at Quaid I Azam University may be influenced by internet games. To do so, we looked for scientific journals, reports, and doctoral dissertations on the subject of my research. The following is related information that we gathered from the research undertaken and the findings.

2.1 Online Game Addiction

Online games feature a networked virtual environment in which thousands of users from all over the world can interact in real time using a virtual persona known as an avatar (Csikszentmihalyi, 1975). Online games are quite appealing to people who use the internet for social stimulation because of the traits listed above (Lo et al. 2005) as a result, it has become a primary means for gamers to interact anonymously and immediately, share their experiences, socialize, and eventually build virtual communities (Ang et al. 2007). Young (1998b) pointed out that it is the Internet's applications, not the Internet itself that have the potential to be addictive. Furthermore, as the number of online gamers has increased, an increasing number of adults have begun to participate in online gaming (Higgins and Green, 2011). Adolescents are no longer the only ones who like playing video games (Wood et al. 2004). The term "internet addiction" refers to a wide range of online habits, one of which is online gaming (Hill, 2007). As a result, some people are looking into online gaming from the standpoint of internet addiction (Ng and Wiemer- Hastings, 2005). Given the apparent link between online games and game addiction, it makes logical to investigate the possibility of forming an internet addiction subcategory, specifically internet game addiction or online game addiction (Ghani and Deshpande, 1994). As a result, the focus of this research is on determining the various reasons of internet game addiction.

2.2 Online Gaming: What Causes Addiction among Adolescents?

The aim of the study by Wan and Chiou (2006) on why are adolescents hooked to online gaming? The goal of this study was to look at the psychological issues that addicts face in Taiwan, as well as the conscious and unconscious motivations that drive online game addicts. During the research, they noticed that the majority of the teens they spoke with said that online gaming had taken over their lives and that life would be dark and bleak without it (Wan and Chiou, 2006). From this vantage point, I can direct my research toward determining why young people become addicted to online games.

Further research in this area found an emotional viewpoint that attempted to explain the rationale. According to Diao (2003), everyone should be able to express their emotions and thoughts. As a result, when a person is unable to fully express him or her, he or she may become depressed. Playing online games, which allow gamers to interact and play with other friends and people on the internet, is one approach to relieve this depression or pressure. Another theory for why teenagers become addicted to the internet is that they are attempting to dodge societal pressure. According to Diao, some young people are naturally too nervous to talk to strangers face to face in real life, but they can be anybody they want when surfing the Internet or playing online games. As a result, individuals can communicate with people they met online without the usual social pressures that come with real interaction meetings (Diao, 2003).

2.3 Internet Addiction: Symptoms and Evaluation

Internet addiction is a relatively recent condition that social workers and psychologists are now uninformed of and unable to handle. (Hofferth and Moon, 2012). Mu (2006) points out that some of the most common indicators of Internet and online gaming addictions include a shrinking social friend network and less face-to-face encounters with others, while the number of virtual friends grows tremendously. Psycho kinesis eventually becomes weaker and weaker with time. This means that after a lengthy period of playing online games, the users become aware of the risks involved. Players often try to play less at this phase in order to reorient themselves to societal demands. However, this is usually ineffective, as it almost always fails (Mu, 2006).

Zhang (2007) and Zhuo (2007), who also conducted similar study and reported varied findings on online game addiction, all of which confirmed the same symptoms. Zhang stated that the majority of undergraduate students who were addicted to the Internet or online games received poor grades at their universities. Furthermore, according to Zhuo cervical spondylosis, neurasthenia, and sleeplessness were listed as physical indicators of Internet and online game addiction. Cervical spondylosis, a common MMOG complaint, is a spinal condition induced by sitting in the same position for long periods of time while

playing games. Injuries to the cervical vertebra on the spinal cord are common as a result of this condition. On the other hand, Neurasthenia is a neurological disease that occurs when players play for long periods of time with little or no sleep in between. Even if players play games for a long period before going to bed, their brains continue to run and experience phantom exhilaration from the games even while they are sleeping. This creates sleep sensitivity and abnormalities, causing addicted gamers to wake up multiple times during the night, resulting in insomnia, which can lead to mental distress and, finally, nervous breakdowns and overall exhaustion (Zhang, 2007; Zhuo, 2007).

After determining the nature of physical and mental symptoms that appear in MMOG addicts, we looked through several literatures on the subject to see how these addictions may be assessed. Young (1999), who undertook a research to help social workers better understand, recognize, and treat Internet addiction, was one of the relevant information sources. Young's study focused on the issues that arise before a diagnosis of Internet addiction. It is relevant to this research in identifying the standard by which I would evaluate my interviews. It would assist me in determining whether or not the people were addicted to internet games (Young, 1999).

This thesis also attempts to identify the negative repercussions connected with using the Internet, as well as approaches to assess and identify the reasons for the onset of pathological Internet use, in order to build a more holistic perspective. To help with this, I looked over current study findings from Hall and Parsons (2001), whose work provides a framework for helping with people who have experienced some of the prevalent symptoms of Internet Behavior Dependence (IBD). These two writers provided a working definition for IBD, as well as an overview of IBD prevalence rates and demographic features, in their study. They also gave presentations on IBD assessment criteria and treatment options. In addition, I was inspired by a distinct diagnosis procedure based on DSM-IV criteria that was linked to pathological gaming. In contrast to the latter, this definition narrows the criteria for identifying online game addicts by requiring persons to meet five of eight Internet addiction criteria in order to be confirmed

as an addict (Hall and Parsons, 2001).

2.4 Distinguishing Addiction and High Engagement in the Context of Online Game Playing

The contrasts between inner and exterior criteria for behavioural addictions were examined by Charlton and Danforth (2007) in the context of Massive Multiplayer Online Game playing. Online gaming addiction has been proven by an actual diagnosis, according to Brian and Wiemer-Hastings (2005), with most scholars depending on their definition of addiction as the document's guide. Kimberly and Young (2007), on the other hand, described and referred to Internet addiction as a unique and usually undiagnosed mental disorder that affects a user's ability to control Internet usage to the point that it causes relationship, occupational, health, and social issues. According to Syracuse University (2007), gaming addiction can result in a lack of sleep, as well as interference with societal obligations such as socialising and academic work. Furthermore, according to Bowman (2004), Internet addiction should not be confused with other types of addiction that entail neurological or biochemical causes. He also stated that Internet addiction should be seen as "a process addiction, which is conceptually distinct from a chemical addiction, and should focus more on mediating and regulating mechanisms between media usage and associated consequences such as addiction" (Bowman, 2004).

Many colleges and hospital clinics have established up outpatient clinics, programmes, and campus support groups to aid individuals who are addicted to the Internet, despite the fact that it has yet to be formally recognised as a condition, according to Young (2007). Furthermore, one interesting aspect of this thesis is that these facts show that playing a lot of games is not the same as being a pathological gamer; the gaming must cause problems for the individual to be classified as having a pathological condition, which can aid us in determining whether the interviewees are addicted to online games or not. Iowa State University (2011) discovered further proof that video game addiction existed across the world, as well as the risk factors for becoming compulsive gamers.

2.5 Role of Media

Addiction to video games has a negative impact on today's society (Holstein et al. 2014). Internet addiction has some of the bad traits of drug addiction, and has been linked to outcomes such as academic failure, family and interpersonal issues (Brian and Peter, 2005). It can make addictive people believe that games can give them with possibilities for accomplishment, independence, and even a connection to other gamers. These advantages outweighed a flimsy feeling of enjoyment, which doesn't keep players as engaged. The media's participation in game advertising adds to the reasons why game addicts will be more interested in certain games. Advertisers spent \$80 million in 2005 to reach game players; by 2009, this figure is anticipated to rise to \$400 million (Park Associate, 2006). In the advertising and marketing literature, themes such as incidental advertisement processing, states of unconscious learning, and retentive exposure effects are still highly contested (Janiszewski, 1993; McQuarrie and Mick 2003; Shapiro, MacInnis and Heckler, 1997; Zajonc, 1980). The bulk of advertising in people's immediate settings are rarely actively involved or processed (Bauer and Greyser 1968; Webb and Ray 1979), However, those advertisements have the potential to alter people's subconscious thinking (Hawkins and Hoch 1992; Krugman, 1981), because the vast majority of learning, emotional reactions, and idea formation occur outside of conscious awareness (Coulter, 2007). Balasubramanian, Karrh, and Patwardhan (2006) are working on a model framework that encapsulates the current state of study on the impacts of product (or brand) placement (on TV, in movies, and in computer games). According to Wood (2008), media coverage of video game "addiction" may cause some concerned relatives to mistake "normal" behaviour for "addiction". Its core premise is that the impact of in-game advertising is determined by the processing type in question, which is influenced by stimuli-based and individual-level factors (Mau, G, Silberer, G and Constien, C, 2013). It is undeniable that some people play video games excessively, but determining when this habit becomes harmful is a challenge.

2.6 Game Cheating Comprehension and Prevention

Cheating poses a major threat to the profitability of online game providers (Jap et al. 2013). Cheaters strive to obtain an unfair edge over other players by duplicating game goods or, more broadly, short-cutting milestones that would take honest people a long time and/or effort (Johnston et al. 2015). This has the potential to completely devastate an online game's in-game economy: Previously valuable and rare things have become freely available, and powerful high-level characters, which are normally uncommon, can now be found almost anywhere (Kaess et al. 2014). Honest players will rapidly realise that they can't keep up with cheaters and will either resort to cheating themselves (accelerating the economic collapse) or abandon the game entirely (Winther, 2014). Aside from item duplication and cheating by cutting corners, another type of cheating is obtaining hidden information, such as the location of an adversary hiding in a forest (Winther, 2015). There was a review and classification of known cheaters, as well as real-world instances (Webb and Soh, 2007). A categorization and taxonomy of online-game cheating was also provided, with regard to the underlying weakness, consequence, and cheating principle (Yan and Randell 2005). Cross-validating clients' game states, game state transition auditing, and trusted computing, which implies players are unable to modify their client software in any manner, have all been presented as ways to prevent game cheating (Kabus, Terpstra et al. 2005). Another technique was presented to prohibit game client changes (and therefore foil hacking behaviours) as well as access to game client information and thus prevents cheating through information extraction (Monch, Grimen et al. 2006). A protocol with verifiable anti-cheating guarantees has been developed for MMOGs, which may be applied to popular game features as well as clustering and cell-based approaches. (Baughman, Liberatore et al. 2007). In response to the increased security dangers posed by online games, it is claimed that game design should handle security concerns while also making play fair for all players (Yan, 2003).

2.7 Psychological and Demographical Study of Online Gamers

Excessive computer game playing has been reported in both the popular press and current scientific study. In a survey of over 7000 gamers, approximately 12 of those who took part met diagnostic criteria for addiction based on their gaming activity, but there was only shaky evidence supporting the link between violent conduct and excessive gaming (Grusser, Thalemann et al. 2006). A study of EverQuest, a massively multiplayer online role-playing game, found that users become addicted to the game in the same manner that other individuals become addicted to alcohol or gambling (Chappell, Eatough et al. 2006). The majority of the people in the EverQuest research appear to have the hallmarks of addiction, including withdrawal symptoms, cravings, and relapse. A research was conducted to explore the conscious and unconscious psychological reasons of online gaming addicts, and seven kinds of needs and motivations were discovered: (1) leisure and amusement, (2) emotional copying, (3) escape from reality, (4) meeting (unmet) interpersonal and social requirements, (5) the desire for success, (6) the need for excitement and challenge, and (7) the need for power and control (Wan and Chiou 2006). The social connections of MMORPGs were investigated, and it was shown that these games may be very sociable, with a high age of players developing life-long friends and partners (Cole and Griffiths 2007). According to the findings, virtual gaming allows players to express themselves in ways they would not feel comfortable doing in real life due to their looks, gender, sexuality, or age. The study also discovered that MMORPGs provide a setting for cooperation, encouragement, and enjoyment. The demographic data for the EverQuest game was gathered, and the results revealed that 81 of players were male, with a mean age of 27.9 years (Griffiths, Davies et al. 2004). The social components of the game were likewise shown to be the most essential factor in game play in this study. In another study, the same authors examined teenage and adult gamers, finding that adolescent gamers are more likely to be male, less likely to gender switch their avatars, and considerably more likely to put their schooling or career on hold (for game playing) (Griffiths, Davies et al. 2004; Charlton JP and Danforth IDW, 2007;

Soper WB and Miller MJ, 1983).

Assumptions

1. Video game activity is a common aspect of daily life for most adolescents, providing amusement, social opportunities, or simply filling time.
2. Video games have negative outcomes, such as the effects of violence exposure.
3. Games may also be linked to good aspects of youth development.
4. Online games are quite appealing to people who use the internet for social stimulation as it has become a primary means for gamers to interact, share their experiences, socialize, and eventually build virtual communities.
5. Internet's applications, not the Internet itself have the potential to be addictive.
6. The majority of the teens think that online gaming had taken over their lives and that life would be dark and bleak without it.
7. Playing online games, which allow gamers to interact and play with other friends and people on the internet, is one approach to relieve this depression or pressure.
8. Individuals can communicate with people they met online without the usual social pressures that come with real interaction meetings.
9. The most common indicators of Internet and online gaming addictions include a shrinking social friend network and less face-to-face encounters with others, while the number of virtual friends grows tremendously.
10. Majority of undergraduate students who were addicted to the Internet or online games received poor grades at their universities.
11. Cervical spondylosis, neurasthenia, and sleeplessness were listed as physical indicators of Internet and online game addiction.
12. Internet addiction is a unique and usually undiagnosed mental disorder that affects a user's ability to control Internet usage to the point that it causes relationship, occupational, health, and social issues.
13. Gaming addiction can result in a lack of sleep, as well as interference with societal obligations such as socialising and academic work.

14. Internet addiction should not be confused with other types of addiction that entail neurological or biochemical causes.
15. Many colleges and hospital clinics have established up outpatient clinics, programmes, and campus support groups to aid individuals who are addicted to the Internet, despite the fact that it has yet to be formally recognized as a condition.
16. Addictive people believe that games can give them with possibilities for accomplishment, independence, and even a connection to other gamers.
17. The media's participation in game advertising adds to the reasons why game addicts will be more interested in certain games.
18. Cheating poses a major threat to the profitability of online game providers.
19. Users become addicted to the game in the same manner that other individuals become addicted to alcohol or gambling.
20. Virtual gaming allows players to express themselves in ways they would not feel comfortable doing in real life due to their looks, gender, sexuality, or age.

CHAPTER NO. 3

THEORITICAL FRAMEWORK

3.1 SYSTEMS THEORY

General systems theory and ecological systems theory are two areas of systems theory. Systems theory is concerned with how the many components work together to form a whole, and how they interact within that whole. It focuses on the links between people, their surroundings, and their ability to operate well (Payne, 2005). Systems theory differs from other theories in that it focuses on and deals with the "whole," whereas other theories just look at portions of the entire (Hanson cited. in Payne 2005). The elements of the systems, on the other hand, interact in a variety of ways, which explains why systems have both equifinality and multifinality (Griffiths and Davies, 2005).

Equifinality refers to how multiple approaches may produce the same consequences, i.e., there are several variables that can lead to an individual becoming addicted to online gaming (Zamani et al. 2010). For example, a person's friends or family may frequently play online games, which may persuade the person to begin playing games and eventually get addicted to them. Another example may be the competitiveness and challenge that these kids who are eager to play online games face. They want to be more successful and achieve a better score than others; therefore they have to devote more time to gaming (Tejeiro Salguero and Morán 2002).

According to research conducted by the Center for Internet Addiction Recovery (Young, 2010), some younger intense gamers suffer from emotional issues that hinder them from effectively connecting with others resorted to MMOGs as a way to experiment with different elements of their personalities, or it might simply be affected by the gamer's surroundings. The fast growth of technology is one of the most often cited causes that psychologists blame for online gaming addiction (Demetrovics et al. 2012).

According to the Young, the progression of the video game from a single player game to an interactive multi-player world allows players to influence and modify the reality in which they are immersed, transforming these games into "self-contained, three-dimensional civilizations" through their characters (Young, 2010). As the user continues to shape this new online environment, their character begins to infiltrate their out-of-game existence, and the brain begins to recognise this character as the genuine reality. Multifinality, on the other hand, is concerned with the fact that the same circumstance can have several outcomes. For example, if two people have the same group of friends who enjoy playing online games, one of them may begin playing with their pals while the other seeks out other fascinating activities (Payne, 2005). The impacts of one individual on another, as well as the interconnected and interacting relationships between them, are the focus of systems and ecological viewpoints. It assumes that each component of the system is required and interconnected in order for the system to function properly (Payne, 2005).

Our research focuses on the interaction between gamers and their families, as well as the health of the individuals and their academic achievements. An essential view of system theories is the process, which connects how linkages and interactions occur, what they consist of, and how they come out. It's also fascinating to learn how different systems interact and have an influence on one another. From these views, there are three primary systems that surround an individual: the individual and its closest relationships on the micro-level, authorities and institutions on the macro-level, and the community and local environment on the meso-level (Healy, 2005).

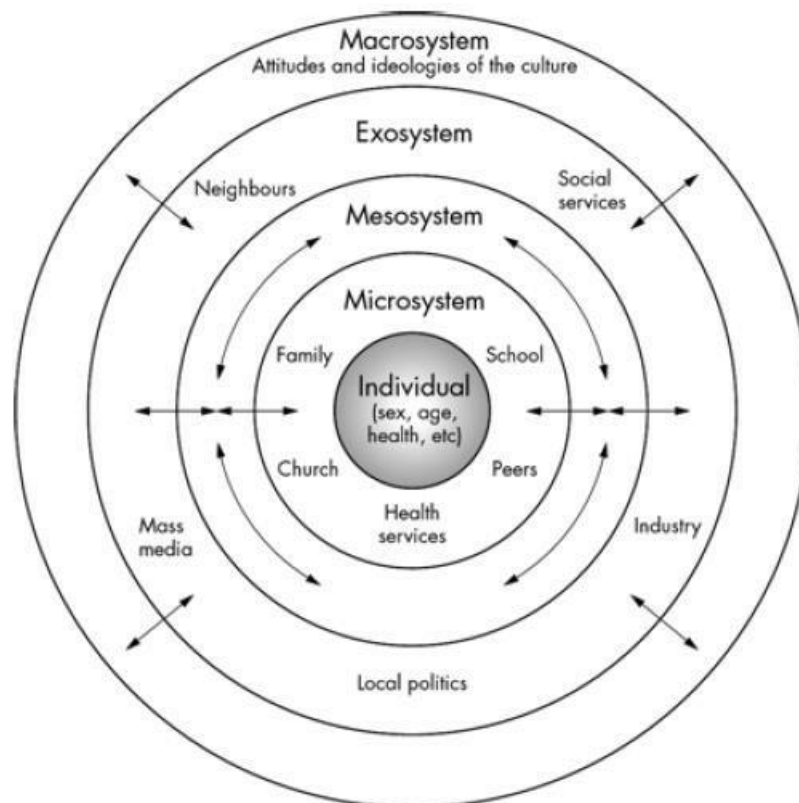
3.2 Bronfenbrenner Ecological Systems Theory and Related Concepts

Bronfenbrenner characterised an individual's environment as a hierarchy of systems encircled by four tiers of circles (see Figure 3.1), with the Microsystem, Mesosystem, Exosystem, and Macrosystem being the four tiers of circles. The Microsystem depicts a pattern of activities and intimate face-to-face relationships within immediate contexts (such as family); the Mesosystem refers to

interactions between micro-systems, such as school experiences linked to church experiences; The Exosystem consists of the connections and activities that occur between various locations, with at least one of them including the (developing) person (such as social services); and the Macrosystem consists of the (developing) person's cultural patterns, with media playing a part (Bronfenbrenner as presented. in Greene, 2008).

Bronfenbrenner's ecological system theory is characterised by three key and fundamental principles. We feel these are the most significant topics for our research because most of our respondents are concentrating their time on computer games as a result of their changing surroundings. All three major ideas are concerned with the individual's relationship to his or her existing surroundings.

Figure 0.1: Ecological Model of Human Development



Source – McLaren. and Hawe. (2005) .pp. 6-14

3.1.1 Relatedness

Relatedness serves as a link that connects one person to another and/or establishes a human relationship. It happens not just in a person's closest circle, such as family, but also in less personal acquaintances, such as members of a civic club. It is critical to an individual's human growth to have people with whom you have positive interactions (Greene, 2008).

3.1.2 Niche and Habitat

Ecological niches, according to Bronfenbrenner (1989), are "environmental areas that are exceptionally conducive or unfavourable to the development of persons with certain personal traits" (quoted. in Greene, 2008). Different locations and/or areas can have a variety of effects on a person.

Habitat refers to a person's natural surroundings within a cultural setting, such as their house. Depending on the individual's unique niche with the region, an individual's habitat may have a positive or negative impact.

3.1.3 Adaptiveness

As previously said, various locales may have distinct effects on people. Adaptiveness is a concept that refers to a person's active alteration of surroundings in order to improve their growth. When an individual and his or her surroundings are a perfect match, it aids in the growth of that individual. (Ibid, p.213).

3.2 Social Learning Theory

Albert Bandura (1977) introduced the well-known social learning theory, which is a popular modern theory. According to social learning theory people learn the skills and attitudes of crime and addiction via close and personal real-life connections with criminal peers (King et al. 2013). According to social control theory, everyone has the capacity to become a criminal or adductor, but the majority of individuals are controlled by their social ties (Király et al. 2014). When the forces that tie people to society are weakened or broken, crime arises

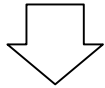
(Ko et al. 2013; Kowert et al. 2014; Kraut et al. 2002).

3.2.1 Application of Social Learning Theory

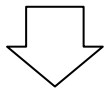
While applying the social learning theory we can see that individuals perceive societal stimulus or environmental process that affects individual personality development and desires of accomplishment of their goals (La Greca and Harrison, 2005). In the environmental process after the family, there are peer groups, friends circle, and the academic group also affects the individuals and to these close group and circle, the individual learns the social norms and values and individual also learn the bad and good habits from these groups which affect their social life (LaRose et al. 2001).

Game addiction is also that type of stimulus which the individual learns from their family, peers' groups, friend circle, and academic groups, because peer groups, friend circle have a great effect on the individual life; if the individual close groups and circle involved in the gaming activities which are not good for the society or indulge in other bad habits like drug abuse which is also not good for the development of the society, these close groups and circles will encourage the individual to go for the crimes and bad habits (Lee et al. 2007). If individual impressed from their close groups, then the individual will be involved in those bad habits and misbehavior which is not a good sign for the prosperity of the society (Lemmens et al. 2011).

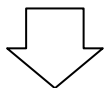
Model of Social Learning Theory



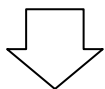
Individuals perceive socio-environmental stimuli that affect individual's personality development.



Anomic or positive ethicality are the adopted behaviors by close groups.



Dysfunctional activities like excessive gaming, burglary and crimes adopt by peer group, family members and friends.



Good or bad social learnings by close relations influence individual's personality development.

3.3 Propositions

1. Albert Bandura (1977) presented famous contemporary theory which is known as by many names as social learning theory according to which individual learns from society. The cognitive hypothesis states that people learn by utilising their brains.
2. Individuals learn by observing others, according to observation learning theory. Modeling (Imitation) which says that individual learns by learn by copying others.
3. The surrounding environment and cognitive factors interconnect to influence the behavior and learning of individual.

3.4 Hypothesis

H₀: Respondents play online games for the purpose of enjoyment.

H₁: Respondents don't enjoy while playing online games.

H₀: There is no relationship between the game hours and the lower grades of the respondents.

H₁: Game hours affect the grades of the respondents.

CHAPTER 4

CONCEPTUALIZATION AND OPERATIONALIZATION

4.1 CONCEPTUALIZATION

Conceptualization and operationalization is a tool used by a researcher during conducting a study (Lenhart et al. 2015). Social scientists use conceptualization and operationalization for explaining the key variables of a study hypothesis (Leung and Lee, 2012). After finding an authentic definition of the key variable of a study a researcher makes his study ready for collecting data from the respondents in the form of a questionnaire (Little et al. 2012). Now the current study is going for the search of an operational and conceptual definition of the study variable. Now we are going to investigate the authentic definition of the variable. Conceptualization is an effective way for exploring indicators of the study variable in social science research (Livingstone, 2013).

Regardless of the fact that early conceptualizations of Internet Addiction aided in the advancement of contemporary knowledge and understanding of Internet Addiction in various aspects and situations, it is clear that the field has considerably changed in numerous ways since then (McCrae and Costa, 1987). Behavioral addictions have lately acquired formal acknowledgment as a result of these continuing developments (Landers and Lounsbury, 2006). Furthermore, Internet Addiction may be classified as a type of technological addiction, which is described as a non-chemical (behavioural) addiction that involves excessive human-machine contact (McKenna and Bargh, 2000).

Despite apparent heterogeneity and contradictions in its basic conceptualization and psychometric evaluation, authoritative medical authorities have lately recognised Internet Gaming Problem (IGD) as a possible mental health disorder (Park et al. 2011). Gaming addiction research goes back to the 1970s, and significant developments have happened in the

area, particularly in terms of description and conceptualization of the problem, resulting in a variety of techniques for assessing IGD using inconsistent criteria or psychometric instruments (Petry and O'Brien, 2013).

The prevalence estimates for Internet gaming addiction in the new century range from 0.2 to 50 of teens, according to research (Király et al. 2015). This disparity in estimations can be attributed to a variety of conceptualizations, measuring equipment, and cutoff criteria (Longman et al. 2009). In addition, several categories (such as "Internet gaming addiction," "dependency," "problematic," and "excessive play") are measured in different populations (children, adolescents, gamers) and countries (Malaby, 2007). Self-reports have been utilised in the majority of research, which calls into doubt the accuracy and reliability of the possible diagnosis (Kuss et al. 2014). Self-diagnosis, on the other hand, has been shown to correspond with established measures of addiction, implying that an individual's impression of issues can be quite accurate (Widyanto et al. 2011).

Until date, studies have equated Internet addiction or Internet gaming addiction to impulse control problems in general, compulsive gambling in particular, drug addiction, or a mix of the two (Skoric et al. 2009). As a result, a variety of psychometric tests have been developed, each evaluating various elements of Internet gaming issues and addiction (Lemmens et al. 2009). The variety of conceptualizations used for Internet gaming addiction has created a diagnostic problem, prompting some academics to dispute its existence and demand for universally agreed-upon criteria to improve study reliability and promote proper and effective treatment (Kuss and Griffiths, 2012).

However, there is a scarcity of research on the natural course of Internet gaming addiction, the most effective treatments, and large-scale epidemiology, suggesting that more study is needed to properly comprehend this behavioural problem. The blurring of the lines between Internet addiction

and video game addiction, according to King and Delfabbro (2013), might "encourage more misunderstanding."

Rather, they propose for a broad definition of Internet addiction that includes a variety of subtypes of online behaviour, as well as the creation of a diagnostic category for both online and offline gaming addiction called "video gaming disease" (McHale et al. 2009). Finally, King and Delfabbro acknowledge that the study diagnosis has generated debate about the nature of behavioural addictions, indicating a shift away from treating drugs just as possibly addictive and toward a more comprehensive view of addiction in general (McKenna and Bargh, 2000).

Given the numerous screening instruments created since 2000, video game addiction measures are expected to be refined, and there will be a stronger consensus on its conceptualization, either as a separate illness or as a component of other recognised disorders (e.g, impulse control disorder). This will very certainly result in better assessment tools based on such thinking (King et al., 2013).

4.2 OPERATIONALIZATION

4.21 Game Addiction

The researcher has analyzed data by exploring the causes and effects of game addiction among the students at Quaid I Azam University, Islamabad.

In Question no, 7 to 15, the researcher is asking about the factors of online games addiction among the youth with different measurements like of three-point scale less than 18, 18 to 25 and More than 25, by self, with friends and with Relatives, at home, someone else hostel, out on the video game shop, alone, friends, and other company, fighting, shooting and racing games.

In Question no, 22, 23, 24, 25 and 26, the researcher is asking about the perception about the online game addiction with the measurement of three-point scale of great Extent, To some Extent, and Not at All.

4.2.2 Students

The age is categorized in the current research because mainly people of this age group involved in game addictions due to enormous reasons. In this age group people mostly prefer peer group and other gathering which ultimately leads to game addiction.

In Question no, 16, 17, 18, 19, 20 and 21, the researcher is asking about the Behavior of students which involve in game usage with the measurement of two-point scale of Yes and No.

In question no, 27, 28, 29 and 30, the researcher is asking about the family check and balance of student involvement in game usage with the measurement of three-point scale of Often, Some Time and Never.

In question no, 31, 32, 33, 34, 35, 36, 37 and 38, the researcher is asking about the effects of online game addiction among the students with the three-point scale of Great extent, To some Extent and Not at All.

CHAPTER 5

RESEARCH METHODOLOGY

Methodology refers to a set of tools and frameworks for conducting social sciences/ natural sciences research. There are two basic perspectives in research methodologies used by social scientists in their research studies which are quantitative and qualitative. Both research methodologies provide a complete framework to social sciences research but there are some criteria based on which a researcher can select or use a particular methodology. This study has been conducted for answering key objective and question which have been raised by the researcher before and after reviewing the existing literature on the causes of online game addiction at Quaid I Azam University, Islamabad. The nature of this study is descriptive, and the theory of analyzing is also a middle-range and formal theory. Two kinds of formal and substantive theories have been applied for the studying of the key problems of the current study.

The quantitative research methodology has been used for conducting this research study. The study is quantitative because it is based on the statistical explanation and tries to understand the interrelationship between education and game addiction. This research is carried out using the following methods, tools, and techniques to collect reliable and valid information.

5.1 Universe

The universe of the current research study was Quaid I Azam University, Islamabad. The researcher explored the causes and effects of online game addiction among the students of Quaid I Azam University, Islamabad.

5.2 Unit Of Analysis (Target Population)

Unit of analysis for this study was the Students (boys and girls) whose age is above 15 to 30. While their selection as a respondent was permitted after the age verification for ensuring the authenticity of respondents.

5.3 Sampling Design

The sample design for this study was random sampling while the selection of the respondents was based on their age and their participation in this study was based on their consent.

5.4 Sample Size

The sample for the study consisted of students who have been engaged in the use of online games. A total of 100 respondents were sampled for the present research. To the validity of research and to cover all the aspects of game adductors in the area, the respondent was selected from Quaid I Azam University, Islamabad. This sample size was sufficient for the study. There were lots of young people who have game addiction, so the researcher easily collects the data.

5.5 Tool For Data Collectio

A quantitative tool for data collection has been used for this study however its questions are close-ended and based on the Linkert scale.

5.6 Technique For Data Collection

In this research, the data was collected as the basis of quantitative research because the quantitative research uses numerical analysis. Quantitative research is the easy way to analyze the collected data for the researcher and the researcher easily analyzes by applying the method. Another reason for using this method was that it saves time while quickly collecting the interview of respondents. Another major reason for using this method was that this design helps the researcher to relate the cause-and-effect relationship between the dependent and independent variable and this design also helps to test the hypothesis.

5.7 Pre-Testing

Before the data collection Research question was checked by some M.Phil. and Ph.D. scholars and according to their suggestion questionnaire have been updated many times.

5.8 Data Analysis

After the data collection, the researcher removed the missing data, questionnaire, and then the researcher used the SPSS software for data analysis. After that process, the data has been converted to MS word from SPSS for a further explanation of the data.

5.9 Ethical Concern

Before researcher started his investigation, Researcher had to be well- prepared on his subject. Researchers were very careful when they contacted the students as they did not want to emotionally hurt them or label them beforehand. Researcher informed all the participants in the research about the purpose and consent of their thesis before filling questionnaire.

5.10 Limitations Of The Study

During the investigation, Researcher only analyzes students at Quaid I Azam University due to the limitations of study area and time. Researcher did not have chance to meet and interview students from other universities or from other cities in Pakistan. Furthermore, it was difficult for them to identify how many students in university were addicted.

Even though students speak English very well, for some words they could not clearly describe by using English and while our native language was Urdu. Of course, researcher had tried their best to solve these problems and decrease the misunderstanding down to the lowest level. The other limitation was that currently there is no officially recognized testing method or even criterion that is used to classify internet gaming addiction. Most researchers are based on their prognosis on DSM-IV criteria for pathological gaming addiction, which in itself is hard to give correct diagnose due to the presence of comorbidity (Block, 2008).

CHAPTER 6

RESULTS

6.1 TABLES

Table 6.1 Gender of the Respondents

Variable	Frequency
Male	87
Female	13
Total	100

The researcher inquired about the gender of the respondents. 87 of the respondents out of 100 were male individuals while 13 were females.

87 was the highest value for the males while 13 was the lowest value representing females of the respondents group.

Table 6.2 Age of the Respondents

Variable	Frequency
15 to 20 years	46
21 to 25 years	49
26 to 30 years	5
Total	100

Table 6.2 is showing the respondent's age. Researcher has been researched different age groups from 15-30 years. It has found that the age group of 21-25 years respondents is more involve in online games addiction.

The highest value is 49.0 with the age group of 21-25 years old and the lowest value is 5.0 with the age group of 26-30 years old.

Table 6.3 Educational Qualification of the Respondents:

Variable	Frequency
BS	73
MSc.	19
MPhil	8
Total	100

The above table shows the frequency distribution of the respondent's education and qualification. The researcher asked about the educational qualification from the respondents out of 100 , 73 respondents are of BS, 19 are of MSc, and 85 are of M.Phil.

In the above table the highest value is 73 (BS) and the lowest value is 8 (MPhil.).

Table 6.4 Hostel No. of the Respondents:

Variable	Frequency
11	13
12	9
3	5
4	3
6	14
7	21
8	19
9	12
OGDCL	4
Total	100

When the researchers inquired about the hostel no of the respondents, 21 of the respondents were living in hostel 5, 19 in hostel 8, 14 in hostel 6, 13 in hostel 11, 12 in hostel 9, 9 in hostel 12, 5 in hostel 3, 4 in OGDCL and 3 in hostel 4.

The highest value is 21 living in hostel no 7 and the lowest value is 3 in hostel no 4.

Table 6.5 Room No. of the Respondents:

Variable	Frequency
1-25	46
26-50	33
51-75	13
76-100	8
Total	100

The researcher also asked about the room numbers of the respondents. 46 respondents answered that they are living in 1-25 rooms, 33 were living in 26-50, and 13 were in 51-75 while 8 were living in 76-100 number rooms.

The highest value was 46 for the room number of 1-25 while the lowest number was 8 for the 76-100 room numbers.

Table 6.6. Marital Status of the Respondents:

Variable	Frequency
Single	97
Engaged	3
Total	100

In the above table, the researcher acquires about the marital status of the respondents, overall, 97 were single, while the remaining 3 were engaged. No respondent was married or divorced at all.

The highest value is 97 is single and the lowest value is 3 is engaged.

Table 6.7 Hours spent while playing online games:

Variable	Frequency
5 to 10 hours	7
11 to 15 hours	59
More than 15 hours	34
Total	100

The researcher also asked about the playing hours from the respondents. 7 respondents answered that they play games for about 5 to 10 hours daily, 59 replied with 11 to 15 hours and 34 were playing for more than 15 hours daily.

The highest value was 59 for the 11 to 15 hours while the lowest number was 7 for 5 to 10 hours.

Table 6.8 Respondent's age when they started playing games:

Variable	Frequency
Less than 18 years	54
18 to 25 years	43
More than 25 years	3
Total	100

In the above-mentioned table, the researcher asked about the age when they started playing online games from the respondents, out of 100 respondents, 54 were less than 18 years of age, 43 were from the age of 18 to 25 years, and Only 3 were above 25 years.

The highest value is 54 which is less than 18 years, and the lowest value is 3 which is above 25 years of age.

Table 6.9 How did Respondents Started Playing Games:

Variable	Frequency
By self	34
With friends	53
With relatives	13
Total	100

In the above-mentioned table, the researcher asked about the starting of playing online games. Out of 100 respondents, 34 started playing games by self, 53 played with friends, and 13 started playing games with relatives.

The highest value is 53 which is with friends and the lowest value is 13 which is with relatives.

Table 6.10 Respondents' Place of Playing Games:

Variable	Frequency
Home	40
Hostel	47
Video game shop	13
Total	100

In the above table, the researcher asked the place of playing games where they have started, 40 were playing at home, 47 in hostel, and 13 were playing games out in the video game shop.

The highest value 47 is in hostel and the lowest value is 13 is out in the video game shop.

Table 6.11 Respondents Liking to Play Online Games:

Variable	Frequency
Alone	23
With friends	59
Others company	18
Total	100

The researcher acquires about liking of online games, out of the total, 23 liked to play games alone, 59 with friends, and 18 were liking to play games in someone's other company.

The highest value is 59 is with friends and the lowest value is 18 is other company.

Table 6.12 Games, Respondents Played Firstly:

Variable	Frequency
Fighting	19
Shooting	73
Racing	8
Total	100

In this table the researcher asked about the games respondents played at first, out of the total 100, 19 played fighting games firstly, 73 played shooting games, and 8 played racing games.

The highest value is 73 which is of shooting games and the lowest value is 8 which is of racing games.

Table 6.13 Games, Respondents Played Mostly:

Variable	Frequency
Fighting	14
Shooting	81
Racing	5
Total	100

In the mentioned table the researcher asked about the games they played mostly. 14 were playing fighting games mostly, 81 were playing shooting games and only 5 were playing racing games.

The highest value was 81 in shooting games and the lowest value was 5 in racing games.

Table 6.14 Respondents' Response after Playing Games:

Variable	Frequency
Relaxed	70
Depressed	11
Neutral	19
Total	100

In the present study, researcher asked from the respondents about their feelings after playing games which have been presented in the above table. However, in reporting their response the researcher reported that 70 of them were feeling

relaxed, 11 feels depressed and 19 of the respondents were normal.

The highest value was 70 which is relaxed, and the lowest value was 11 which is depressed.

Table 6.15 Do You Play Games for Enjoyment?

Variable	Frequency
To great extent	74
To some extent	22
Not at all	4
Total	100

In the above table, the researcher asked about the enjoyment of games, out of 100 respondents, 74 were enjoying games up to a great extent, 22 were enjoying to some extent and 4 were not enjoying at all.

The highest value is 74, which is to great extent and the lowest value is 4 which is not at all.

Table 6.16 Respondents play the Games because of their Involvement in Extra-Curricular Activities:

Variable	Frequency
To great extent	20
To some extent	52
Not at all	28
Total	100

Researcher asked about playing games firstly because of their involvement in extra-curricular activities. Out of 100, 20 were playing games firstly because of

their involvement in extra-curricular activities up to great extent, 52 were involved up to some extent and 28 were not involved.

The highest value 52 which is up to some extent and the lowest value is 20 which is up to great extent.

Table 6.17 Respondents play Games more than one at a Time:

Variable	Frequency
Yes	33
No	67
Total	100

Researcher inquired from the respondents that whether they played more than one games at the same time as their game's dependency was on the types of games which have been presented in the above table. The researcher reported that 33 of them respond with yes, while 67 respond with No.

The highest value was 67 to No and the lowest value was 33 to yes.

Table 6.18 Respondents' status of playing games without a week:

Variable	Frequency
Yes	6
No	94
Total	100

Researcher had also asked from the respondents that whether they can pass a week without playing games or not in the above table. In the response of that question, 6 respondents answered with yes and 94 replied with no.

The highest value was 94 that is no, and the lowest value was 6 that is yes.

Table 6.19 Respondents' behavior about they are always able to stop playing games when they want to:

Variable	Frequency
Yes	17
No	83
Total	100

In the present study researcher asked from respondents that whether they perceived their self-able to avoid games by their own which have been presented in the above table. In the response to that question, 17 respondents answered with yes and 83 respondents answered no.

The highest value was 83 for no and the lowest value was 17 for yes.

Table 6.20 Respondents involve in fighting due to the influence of Games:

Variable	Frequency
Yes	69
No	31
Total	100

In the above table, researcher asked from the respondents whether they ever gotten into fight after playing games. However, in the response of that question, 69 respondents answered with yes while 31 answered no.

The highest value was 69 to yes and the lowest value was 31 to no.

Table 6.21 Respondents' engagement in illegal activities to play games:

Variable	Frequency
Yes	2
No	98
Total	100

Researcher inquired from the respondents that they ever engaged into illegal activity because of their game addiction. However, in the response to this question, 2 replied with yes while 98 out of 100 replied with no that they are never engaged in illegal activities.

The highest value was 98 for no and the lowest value was 2 for yes.

Table 6.22 Respondents manage the social activities during playing online games:

Variable	Frequency
Yes	69
No	31
Total	100

Researcher inquired from the respondents that whether they can manage their daily social activities properly after playing games. In the response to that question, 69 of the respondents replied with yes while 31 answered with no that they cannot managed theirs daily social activities.

The highest value was 69 for yes and the lowest value was 31 for no.

Table 6.23 Games affect the health of respondents:

Variable	Frequency
To great extent	33
To some extent	45
Not at all	22
Total	100

Researcher inquired from the respondents about the effect of games on their health that whether they accept that it can harm their health or not. 33 of them reported that yes it can harm their health up to great extent, 45 of them reported that yes it can harm their health up to some extent, but 22 of them out of 100 reported that no it did not harm their health.

The highest value was 45 to some extent and the lowest value was 22 for not at all.

Table 6.24 Respondent consultants with anyone regarding game addiction problem:

Variable	Frequency
To great extent	10
To some extent	39
Not at all	51
Total	100

Researcher has inquired from the respondents that whether they ever asked to someone for help to save them from game addiction. In the response to that question, 10 of them claimed that yes, they asked someone for help up to great extent, 39 of them reported that they have asked to someone for help up to some extent, while the remaining 51 respondents reported that they never asked

someone for help. The highest value was 51 to never and the lowest value was 10 for great extent.

Table 6.25 Respondents do feel any guilt or bad over the game playing or not:

Variable	Frequency
To great extent	34
To some extent	40
Not at all	26
Total	100

In this table, the researcher inquired from the respondents that are they feel any guilty or bad about their game addiction or not. Out of the total, 34 responds that the feel guilty up to a great extent while 40 replied with some extent, and 26 had no guilt at all.

The highest value was 40 for up to some extent and the lowest value 26 for not at all.

Table 6.26 Effect on social circle of the respondent due to games:

Variable	Frequency
To great extent	23
To some extent	52
Not at all	25
Total	100

Researcher inquired from the respondents that whether playing games affect their social circle or not. In the response to that question, 23 of the respondents reported that games affect their social life up to great extent, 52 of the respondents reported that games can affect their social life up to some extent, while 25 of the respondents reported that online game addiction do not affect their social lives.

The highest value was 52 to some extent and the lowest value was 23 for not at all.

Table 6.27 Respondents manage their daily routine due to excessive game play or not:

Variable	Frequency
To great extent	5
To some extent	19
Not at all	76
Total	100

Researcher also inquired from the respondents that whether they can manage their daily routine effectively while playing games or not.

Respondents reported their response in which 5 of them claim that yes, they can manage their daily routine effectively up to great extent while playing games, 19 of the respondents claim that yes, they can manage their daily routine up to some extent, while 76 of them reported that no they cannot manage their daily routine effectively.

The highest value was 76 to not at all and the lowest value was 5 to great extent.

Table 6.28 Respondents' status of involvement in games anyone complains to their family

Variable	Frequency
Often	54
Sometime	36
Never	10
Total	100

Respondents have been asked that whether anyone ever complained to their family about their involvement in games or not. In the response to the question, 54 of the respondents report that yes, their families often get complaints about their involvement in online games, 36 of the respondents respond with sometimes and 10 responded with never.

The highest value was 54 for often and the lowest value was 10 for never.

Table 6.29 Respondents family status to investigate about individual:

Variable	Frequency
Often	75
Sometime	20
Never	5
Total	100

Researcher has asked from the respondents that whether their families investigate about them when they are out of home or not. In the response to this question, they reported their response as follow: 75 of the respondents claim that yes, their families often investigate about them, 20 replied with sometimes and 5 of the respondents answered with never.

The highest value was 75 to often and the lowest value was 5 to never.

Table 6.30 Conflict between respondents and family due to game addiction:

Variable	Frequency
Often	21
Sometime	63
Never	16
Total	100

Researcher asked from the respondents that whether game addiction created problems between them and their family. In response to this question 21 of the respondents reported that yes, often it creates problems between them and their family, 63 of respondents reported that yes sometimes it created problem between them and their families, and only 16 of the respondents reported that not their game addiction never created problem between them and their families.

The highest value was 63 for sometimes and the lowest value was 16 for never.

Table 6.31 Conflict between friends and respondents due to game addiction:

Variable	Frequency
Often	28
Sometime	59
Never	13
Total	100

Respondents have been asked that whether their friends ignored them because of their game addiction or not. However, in response to this question 28 of the respondent answered that yes, often their friends have ignored them, 59 of the respondents reported that yes sometimes their friends have ignored them, and only 13 of them reported that no their friends are with them and do not ignored them.

The highest value was 59 to sometimes and the lowest value was 13 for never.

Table 6.32 Respondents' frustration after playing games:

Variable	Frequency
To great extent	41
To some extent	53
Not at all	6
Total	100

Respondents have been also asked that whether they feel frustrated after playing games. In response to this question 41 of the respondents reported that yes, they feel frustrated after playing games up to great extent, 53 of them reported that yes, they feel frustrated up to some extent, while only 6 of the respondents reported that they do not feel frustrated after playing games.

The highest value was 53 to some extent and the lowest value was 6 to not at all.

Table 6.33 Loss of friends:

Variable	Frequency	
To great extent	12	12.0
To some extent	77	77.0
Not at all	11	11.0
Total	100	100.0

In the above table the researcher asked about the loss of friends due to excessive game play, out of 100, 12 lost their friends to a great extent, 77 lost their friends to some extent and 11 were not at all.

The highest value was 77 to some extent and the lowest value was 11 to not at all.

Table 6.34 Family's neglection:

Variable	Frequency
To great extent	4
To some extent	24
Not at all	72
Total	100

In the above-mentioned table, the researcher asked about the neglection of family because of excessive game play, out of the total, 4 neglected their family to a great extent because of excessive game play, 24 were to some extent and 72 were not at all.

The highest value was 72 for not at all and the lowest value was 4 for to great extent.

Table 6.35 Troubles in the University:

Variable	Frequency
To great extent	53
To some extent	41
Not at all	6
Total	100

Researcher asked in the above-mentioned table about the troubles in university because of excessive playing of games, 53 were troubled in university to a great extent, 41 were to some extent and 6 were not at all.

The highest value was 53 to great extent and the lowest value was 6 to not at all.

Table 6.36 Experienced sicknesses when stopped playing games:

Variable	Frequency
To great extent	3
To some extent	26
Not at all	71
Total	100

In the table above the researcher asked about the experience of sickness when respondents stopped playing games, out of 100, 3 were agreed to a great extent, 26 were to some extent and 71 were not at all.

The highest value was 71 for not at all and the lowest value was 3 to great extent.

Table 6.37 Respondents medical status:

Variable	Frequency
To great extent	81
To some extent	17
Not at all	2
Total	100

In this table, the researcher asked about the medical problem from the respondents, 81 had a medical problem to a great extent, 17 were to some extend and 2 were not at all.

In the above table highest value was 81 for great extent and the lowest value was 2 for not at all.

Table 6.38 Respondents grades after playing online games:

Variable	Frequency
To great extent	56
To some extent	40
Not at all	4
Total	100

The researcher asked about their grades that whether their grades suffer after playing online games or not. 56 replied with a great extent, while 40 replied up to some extent and only 4 answered with not at all.

The highest value was 56 for great extent while the lowest value was 4 for not at all.

Table 6.39 Respondents' guilt over bad grades:

Variable	Frequency
To great extent	68
To some extent	29
Not at all	3
Total	100

When the researcher asked about their guilt on their bad grades, 68 were feeling guilt up to great extent, 29 up to some extent while 3 had no guilt over it.

The highest value was 68 for great extent while lowest was 3 for not at all.

6.2 Hypothesis Testing

6.2.1 Hypothesis 1

Ho: Respondents play online games for the purpose of enjoyment.

H1: Respondents don't enjoy while playing online games.

Statement:

The respondents were asked about the number of hours they play online games, and whether they play online games for enjoyment. The same thing is tested with the help of chi square test.

For how many hours you play online games? * Do you play online games for enjoyment?

			Do you play online games for enjoyment?			Total
			To great extent	To some extent	Not at all	
For how many hours you play online games?	5 to 10 hours	Count	4	3	0	7
		Expected Count	5.2	1.5	.3	7.0
	11 to 15 hours	Count	42	14	3	59
		Expected Count	43.7	13.0	2.4	59.0
	More than 15 hours	Count	28	5	1	34
		Expected Count	25.2	7.5	1.4	34.0
Total		Count	74	22	4	100
		Expected Count	74.0	22.0	4.0	100.0

Chi-Square Test

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.488 ^a	4	.480
Likelihood Ratio	3.581	4	.466
Linear-by-Linear Association	1.702	1	.192
N of Valid Cases	100		

a. 4 cells (44.4) have expected count less than 5. The minimum expected count is .28.

The probability values are more than 0.05 which shows the non-significance of the independent variable. It means the null hypothesis is rejected. In other words, we can say that there exists a negative relation between the game hours and the grades suffer due to it.

6.2.2 Hypothesis 2

H₀: There is no relationship between the game hours and the lower grades of the respondents.

H₁: Game hours affect the grades of the respondents.

Statement:

The respondents were asked about the number of hours they play online games, and their grades suffer due to online game addiction.

The same thing is tested with the help of chi square test.

For how many hours you play online games? * Did your grades suffer when you played online games for the first time?

			Did your grades suffer when you played online games for the first time?			Total
			To great extent	To some extent	Not at all	
For how many hours you play online games?	5 to 10 hours	Count	5	2	0	7
		Expected Count	3.9	2.8	.3	7.0
	11 to 15 hours	Count	35	22	2	59
		Expected Count	33.0	23.6	2.4	59.0
	More than 15 hours	Count	16	16	2	34
		Expected Count	19.0	13.6	1.4	34.0
Total		Count	56	40	4	100
		Expected Count	56.0	40.0	4.0	100.0

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.296 ^a	4	.682
Likelihood Ratio	2.547	4	.636
Linear-by-Linear Association	2.263	1	.132
N of Valid Cases	100		

a. 5 cells (55.6) have expected count less than 5. The minimum expected count is .28.

The probability values are more than 0.05 which shows the non-significance of the independent variable. It means the null hypothesis is accepted. In other words, we can say that there exists a negative relation between the game hours and the grades suffer due to it.

CHAPTER 7

SUMMARY, KEY FINDINGS AND SUGGESTIONS

7.1 Summary

This research study was carried out at Quaid I Azam University, Islamabad. Gaming addiction is a very serious problem in the world today including Pakistan. Gaming Addiction has become a topic of increasing research interest. The last decade has witnessed a significant increase in the number of empirical studies examining various aspects of problematic video game play and video game addiction. Therefore, the present study is designed to find out the causes and effects of game addiction especially among the students. The present study shows that the majority of the respondents with a frequency of 73 of the respondent's, 73 were undergraduates. The students have been involved in playing excessive games in their early adolescence or adulthood. The system theory and social-learning theory were used in this study. The researcher found that most of the respondents were undergraduates and started playing games since the age of 15 to 25. The family and parents do not give attention to the well-being of their children because they think, they are careless regarding maintaining their physical and mental health and to involve in more excessive games because of less attachment with their family and feels alien from them.

Sometimes they were also facing health problems. The frequency of game addicts is rationally increasing in society. It was analyzed from the result that the significant frequency of game addicts 73 was undergraduates. It has been observed that the well-educated students were also involved in diversified activities such as excessive game play and illegal activities. It can be harmful to the up-coming youth who might be victimized by such activities. In every society, people respect the well-educated and consider them as a role model for the up-coming generation. They have easily accessed these games. Sometimes, they fulfilled their need for playing games by using illegal ways to earn some points or ranks. At the start, they play games for pleasure but after some time, they become addicted. This addiction to games affects their life and their social activities and also their health.

7.2 Key Findings

1. 87 was the highest value for the males who were addicted to online games while 13 was the lowest value representing females of the respondent's gender.
2. The highest value for game addicts is 49.0 with the age group of 21-25 years old and the lowest value is 5.0 with the age group of 26-30 years old.
3. The highest value for game addicts is 73 (BS) and the lowest value is 8 (MPhil.) in the field of education.
4. The highest value is 27 where respondents were living in hostel no 7 and the lowest value is 3.0 where respondents belonged to hostel no
5. The highest value was 46 for the room number of 1-25 where respondents were living while the lowest number was 8 for the 76-100 room numbers.
6. The highest value was 97 that is single and the lowest value was 3 who were engaged.
7. The highest value about the age when respondents started playing online games is 54 which is less than 18 years, and the lowest value is 3 which is above 25 years of age.
8. The highest value about the starting of playing online games is 53 which is with friends and the lowest value is 13 which is with relatives.
9. The highest value about the place of playing games where respondents have started is 47 that is in hostel and the lowest value is 13 that is out in the video game shop.
10. The highest value about liking of online games is 59 that is like to play with friends and the lowest value is 18 that is with other company.
11. The highest value about the games respondents played at first is 73 which is of shooting games and the lowest value is 8 which is of racing games.
12. The highest value about the games they played mostly is 81 in shooting games and the lowest value was 5 in racing games.
13. The highest value was 70 for those respondents who reported that they were relaxed while playing games and the lowest value was 11 for those respondents who reported that they feel depressed.
14. The highest value about the enjoyment of games is 74, which is to great

- extent and the lowest value is 4 which is not at all.
15. The highest value about playing games firstly because of their involvement in extra-curricular activities is 52 which is up to some extent and the lowest value is 20 which is up to great extent.
 16. The highest value was 67 to No for those who played games more than once at a time and the lowest value was 33 to yes.
 17. The highest value was 94 that is no, and the lowest value was 6 that is yes for those respondents who's spent a week without playing games.
 18. The highest value was 83 for no and the lowest value was 17 for yes for those respondents who are always able to stop playing games when they want to
 19. The highest value was 69 to yes and the lowest value was 31 to no for those respondents whose involve in fighting due to the influence of excessive games.
 20. The highest value was 98 for no and the lowest value was 2 to yes for those respondents who are engaged in illegal activities to play games.
 21. The highest value was 69 for yes and the lowest value was 31 to no for those respondents whose manage the social activities during the game play.
 22. The highest value 45 was measure with the scale of to some extents was for those whose health was affected by games and the lowest value was 22 was measure with the scale of not at all.
 23. The highest value 51 was measure with the scale of never were those who's consultant with anyone regarding game addiction problem and the lowest value was 10 was measure with the scale of to great extent.
 24. The highest value inquired from the respondents that are they feel any guilt or bad about their game addiction or not is 40 for up to some extent and the lowest value 26 for not at all.
 25. The highest value 52 was measure with the scale of to some extents were those who's social circle was affected due to games and the lowest value 23 was measure with the scale of not at all.
 26. The highest value 76 was measure with the scale of not at all were those respondents who managed their daily routine effectively while playing games and the lowest value 5 was measure with the scale of to great extent.

27. The highest value about respondents whether anyone ever complained to their family about their involvement in games or not is 54 for often and the lowest value was 10 for never.
28. The highest value was 75 to often and the lowest value was 5 to never for those respondents whose families investigating when they are out of home.
29. The highest value was 63 for sometimes and the lowest value was 16 for never for those respondents who said that yes excessive game playing creates problems between them.
30. The respondents have been asked that whether their friends ignored them because of their game addiction or not. The highest value was 59 to sometimes and the lowest value was 13 for never.
31. The highest value 53 was measure with the scale of to some extents were those who feel frustrated after playing games and the lowest value 6 was measure with the scale of not at all.
32. The highest value 77 was measure with the scale of to some extents were those who's loss their friends and the lowest value 11 was measure with the scale of not at all.
33. The highest value 72 was measure with the scale of not at all were those who's neglect by the family due to excessive game play and the lowest value 4 was measure with the scale of to great extent.
34. The highest value 53 was measure with the scale of to great extent were those who's facing troubledness in university due to excessive game play and the lowest value 6 was measure with the scale of not at all.
35. The highest value was 71 for not at all and the lowest value was 3 to great extent about the experience of sickness when respondents stopped playing games.
36. The highest value 81 was measure with the scale of to great extent were those who's said they had a medical problem due to excessive game play and the lowest value 2 was measure with the scale of not at all.
37. The highest value was 56 for great extent while the lowest value was 4 for not at all about their grades that whether their grades suffer after plying online games or not.
38. The highest value was 68 for great extent while lowest was 3 for not at all about

their guilt on their bad grades.

7.3 Gaming addiction: the future?

The amount and the quality of research in the gaming addiction field has progressed much over the last decade but is still in its infancy compared to other more established behavioral addictions, such as pathological gambling. Before looking at the changes and trends over the last 30 years, this section briefly provides a considered (and somewhat theoretical) examination of what might happen in the gaming addiction field from a number of different standpoints (e.g., methodological, conceptual, technological). These are loosely modeled on the technological trends in gambling recently outlined by Griffiths (Griffiths MD, 2011).

There is likely to be an even bigger increase in empirical research into problematic video game playing and video game addiction. This will of course be dependent on both appropriate funding streams and/or whether gaming addiction ends up being included in future psychiatric disorder classifications (e.g., DSM, ICD, etc.). Future research is likely to include more epidemiological and/or general population data on media use, leading to better insights into the onset and course of problematic video game play and addiction.

Gaming on the move is likely to be a big growth area that may have implications for excessive gaming *via* convenience hardware such as handheld gaming consoles, PDA devices, mobile phones, tablet computers, and MP3 players.

Given the fact that the Internet is gender-neutral, there is likely to be increasing feminization of gaming where increasing numbers of females not only engage in the playing of online games, but also develop problems as a result. Casual gaming online is already popular among females (Lewis A and Griffiths MD, 2011). However, the biggest difference between male and female gaming is likely to be content-based (e.g., males may prefer competitive type gaming experiences whereas females may prefer co-operative type gaming experiences).

Given the increasing number of research teams in the gambling field being given

direct access to gambling companies' behavioral tracking data (Griffiths MD and Whitty MW, 2010), there is likely to be an increasing number of such collaborations in the gaming studies field.

Given the increased importance of additional research into the structural and situational characteristics of consumptive behaviors (e.g., smoking nicotine, drinking alcohol, gambling, etc.), it is likely that research on design feature within games and their psychological impact (including potential addiction) will increase as well.

As the diagnosis of video game addiction becomes more legitimate in psychiatric and medical circles, it will lead to better randomized controlled trials on interventions for problematic video game play than the ones already carried out (King et al. 2008). There is also likely to be an increase in the online medium itself being used as a treatment channel. The reasons that people like to engage in some online leisure activities (i.e., the fact that the online environment is non-face-to-face, convenient, accessible, affordable, anonymous, non-threatening, non-alienating, non-stigmatizing, etc.) may also be the very same reasons why people would want to seek advice, help and treatment online rather than in face-to-face situations.

7.4 Conclusion

As the results show, addiction to computer games affects various dimensions of health and increases physical problems, anxiety and depression, while decreases social functioning disorder. Based on the published empirical studies, and particularly those published over the last decade, it appears that in extreme cases, excessive video game playing can have potentially damaging effects upon individuals who appear to display compulsive and/or addictive behaviors similar to other more traditional addictions (Cole and Griffiths 2007). However, the field has been hindered by the use of inconsistent and no standardized criteria to assess and identify problematic and/or addictive video game use. Furthermore, most studies' recruitment methods have serious sampling biases with an over-reliance on self-selected samples.

7.5 Suggestions For Future Research

The study concludes that this is something that is worth researching about, as this has been a very common phenomena and it will be even more common in the future. Here are a few suggestions;

1. In the process of investigation, particularly on the step of group selection, it would be appropriate to distinguish the people who are just fond of computer game from those the online game addicts.
2. Although both groups are sharing a common character like favorite of computer game, not everyone would doom to be addicted to online game. So a practical evaluation measures are necessary for assessment of who would be prone to the addiction.
3. The research data/information would not be of meaningful and valuable unless group of people who are prone to addiction being accurately selected. In addition, once the group selection has been accomplished and then investigation begins. During the process of investigation, one would be aware of that some people would usually decline the fact that they are addicted to online game.
4. With regarding to that, we would suggest such words as —addicts or addictedll should be avoided when asking a question or describing something related to the interviewees. In the meantime, it is absolutely necessary to distillate the contents of the answers, so as to make the data somewhat useful and reliable. Further, an investigation from different culture background would be worthwhile in future.

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ANNEXURE
SURVEY QUESTIONNAIRE

**EXPLORING THE CAUSES AND EFFECTS OF ONLINE GAME
ADDICTION AMONG STUDENTS AT QAUID-I-AZAM UNIVERSITY,
ISLAMABAD**

The purpose of this research is to find the causes and effects of online games addiction among students at Quaid-i-Azam University, Islamabad. This research is being supervised by Dr. Farhan Ahmed at Quaid-i-Azam University. Your participation in this research study is voluntary. The procedure involves filling a survey questionnaire that will take approximately 5 minutes. Your responses will be confidential, and we do not collect identifying information such as your name, email address or IP address. The survey questions will be about the addiction of online games and its effects. The results of this study will be used for scholarly purposes only and may be shared with Quaid-i-Azam University representatives.

SUBHAN GULFAM ABBASI

Signature of Respondent

DEMOGRAPHIC PROFILE

1. **Gender:** 1) Male 2) Female

2. **Age (in years):** _____

3. **Education:** 1) BS 2) MSc 3) M.Phil.

4. **Hostel No:** _____

5. **Room No:** 1) 1-25 2) 26-50 3) 51-75 4) 76-100

6. **Marital status:** 1) Single 2) Engaged

STIMULATING FACTOR OF ONLINE GAME USAGE

No	Please fill your response with an appropriate answer	1	2	3
7	Which age have you started playing online games?	Less than 18	18 to 25	More than 25
8	How did you start playing online games?	By self	With friends	With relatives
9	Where were you played online games?	At home	Someone else hostel	Out on the video game shop
10	How do you like to play online games?	Alone	Friends	Other company
11	Which game you played firstly?	Fighting	Shooting	Racing
12	Which game you played mostly?	Fighting	Shooting	Racing
13	What do you feel after playing online games?	Relaxed	Depressed	Neutral
14	Do you play online games for enjoyment?	To great extent	To some extent	Not at all
15	Did you play online games firstly because of your involvement in extracurricular activities?	To great extent	To some extent	Not at all

BEHAVIOUR OF ONLINE GAME ADDUCTORS

		YES	NO
16	Do you play more than one game at a time?		
17	Can you get through the week without playing online games?		
18	Are you always able to stop playing games when you want to?		
19	Have you gotten into fights under the influence of games?		
20	Have you engaged in illegal activities in order to play games?		
21	Do you manage your social activities during playing online games?		

PERCEPTION ABOUT ONLINE GAME ADDICTION

No	Please give the answers to question stated below:	To Great extent	To some extent	Not at all
22	Do you think online game addiction can harm your health?			
23	Have you gone to any one for help for a game addiction problem?			
24	Do you ever feel bad or guilty about your game addiction?			

25	Do you think online games can affect your social circle?			
26	Do you manage your daily routine while playing online games?			

FAMILY CHECK AND BALANCE OVER STUDENT'S INVOLVEMENT IN PLAYING ONLINE GAMES

No	Please fill yours answer for the given statement:	Often	Some time	Never
27	Does your family get complaints about your involvement in online games?			
28	Does your family investigate about you when you are out of home for long time?			
29	Has online game addiction created problem between you and your family?			
30	Have your friend avoid you because of game addiction?			

THE EFFECT OF ONLINE GAME ADDICTION

No	Fill your answer for the given statements:	To Great extent	To some extent	Not at All
31	Do you feel frustrated after playing games?			

32	Have you lost friends because of game addiction?			
33	Have you neglected your family because of your addiction of games?			
34	Have you been in trouble at university because of game addiction?			
35	Have you ever experienced (felt sick) when you stopped playing games?			
36	Have you had a medical problem a result of your game use (e.g., anxiety, depression, obesity, sleeping disorders, stress etc.?)			
37	Did your grades suffer when you played online games for the first time?			
38	Do you ever feel bad or guilty about your bad grades?			