

## Examine the Effect of Online Gaming on Social Interactions and Social Competence Among University Students

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### Abstract

*The current study examined the amount of time university students spend playing online games, social competence, and social interactions. Using non-probability purposive sampling, the research respondents were selected to examine the weekly involvement in online games among university students from Lahore, Punjab. The research results were tested using correlational analysis to evaluate individuals' social interaction and social competence. One hundred twenty university students were randomly selected to test how involvement in online games, game-playing time, and display duration affected their social competence and social interactions. The study's results indicated that average video game playing was positively correlated with internet gaming disorder and social interaction anxiety. Results also found a positive correlation between internet gaming disorder and social interaction anxiety. However, no significant relationship was found between internet gaming addiction, social interaction anxiety, and social and emotional loneliness among university students. The study's implications are essential for parents, students, and teachers.*

### Introduction

The computer game industry formed in 1971 with the main financially sold coin-worked video game Computer Space has seen much change since then (Goldberg & Vendel, 2012). With the progression of time, in recent years, computer game innovation has changed from coin-worked arcade machines to home online-based game structures that present photorealistic graphics, offer great artificial intelligence, and permit people to play against others around the globe while sitting at home. Computer gaming has shifted to online gaming, online interactions, friendships, clans, and loyalties, which are much like physical interactions people have with one another. However, different people have different perspectives on online gaming. Some view it as entertainment. Some consider it unhealthy and a waste of time and energy. In a study, Koster (2013) comments in his ongoing book that contains "fun." As fun in all aspects is essential to games, he assigned the remainder of his book to describe comprehension of what makes games fun. Koster describes a game as fun because it provides instructions and pleasure for the player.

The eternal debate as to whether online games are downright evil or an engine for social mobility and a tool for cognitive enhancement is still going on. Research is split between the detrimental outcomes of gaming online and the cognitive maturity among growing teens. One end of the spectrum advocates the positive side of games as well. Focusing on the possible positive effects of gaming is prime since the content of these games has been transformed significantly in recent years, becoming progressively reasonable, different, pragmatic, and social (Ferguson & Olson, 2013). It may not be accurate to assume that gaming is only a free time activity and contesting is

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the purpose of gaming. It started as obtaining more points in arcade games contesting in online gaming, and it has now become a worldwide fact.

Using media also diverts individuals' attention and changes their mood swings. As per the research by Ruggiero (2000) individuals use different modes of media to direct their state of mind as well as modify their emotional states. Gaming can be a more beneficial and purposive source through which kids and teenagers produce positive thoughts and manage their moods. Different research has proven a link between playing favorite online games, refining mood, and increasing positive feelings and thoughts (Russoniello et al., 2009; Ryan et al., 2006). However, despite the research, it is pertinent to examine whether online gaming and interactions impede the physical interactions of young individuals. For the current study, we focused on a famous multiplayer game called PUBG.

### **PUBG (Player Unknown's Battleground)**

One of the famous and well-accepted games in the current era is Player Unknown's Battlegrounds (PUBG), a team game devoted to "winner-takes-all" and persuaded by the Japanese picture Battle Royale. More precisely, in the PUBG game, players bounce nearly 100 players onto an island. These four teams battle one another near death until only one team is left alive. The game can be played on both smartphones and consoles. PUBG is a group-based game that requires the presence of another partner to play, which is a direct cause of social interactions. The game has been downloaded over 100 million times on the Google Play Store (Barlow et al., 2019). The game pattern allows individuals to enter a region where their brain is focused on a goal and nothing else. It will help individuals obtain something termed tunnel vision—the ability to block out unwanted thoughts and emotions and focus on the task. The player's mission is to get everything to win, from clothes to medical, and stand until the end (Hall, 2018).

Social interaction refers to people's interaction and interference with one another. It is an essential component of the human life cycle as humans are known as "social animals," so it becomes difficult for humanity to survive and fulfill its needs without interacting with others.

Other individuals must play or have fun, even in fun activities and games. Social interaction includes people communicating face to face or through technology and linking concerns with others. Social interaction is a process whereby men inter-penetrate the minds of each other.

### **Literature Review**

In the present era, online gaming plays a vital role in youth's daily routine. It may not be wrong to say that the positivity and negativity of any object are interlinked. It has been observed that online gaming is the reason for negative interference in an individual's life. Besides, playing online games does not depend on game scores but also includes the reason for social interaction with other players during the game (Koster, 2013). The world's toy manufacturing hinges on the popularity of action figures and characters from online games. Young people and adults are the potential buyers of all such memorabilia and toys. This industry has a significant amount of money involved. Young individuals who excessively play video games are somewhat socially inept. Research, however, has called this erroneous belief into question. In a recent study (Griffith, 2010), the researchers found that rather than engaging with complete strangers in their virtual gaming world, the gamers preferred to play with their family's immediate members and concluded that gaming with members of the family and close friends could work as a channel through which young adults can come to terms with one another.

Similarly, the new contention is that gaming increase's cognitive ability, manual dexterity, and brain function. The old notion that playing games on consoles would lead to a decline in cognitive function is now thoroughly debunked. The genre of games under the umbrella of first-person and third-person shooting games had increasingly received a bad reputation for instilling violence and nonchalance in their players. Aichner and Jacob (2015) opine that the realm of online games is not solitary. Instead, they are avenues bursting with social mobility and exchange of thoughts. Gentile et al. (2009) in their seminal work, which entailed data from multicenter research, found that games that relied on altruism and helping behavior in the game world found corresponding behavior of children in the real world. They found that from the immediate to the distal time scale, children exhibited helping behavior at school as well.

With time, the internet is utilized and acknowledged more broadly, and online gaming has become a social tool. Players can interact and talk to each other along with a system. Most games hold content that keeps individuals engaged in violent work as pro-social cues and acquire social competence "benefit for others" goals (Eastin, 2007).

In another study, it has been observed that online games demand an individual's significant degree of social competence and cooperation with a large number of individuals to work collaboratively to attain specific goals in the game; this can only be accomplished through group work to achieve those goals (Cole & Griffiths 2007).

However, the opposite is also true in that people who spend too much time and energy in online games may need help to liaise with individuals in the physical world. In other words, the more online presence and a sense of self an individual has in the online world, the more will the person feel at home there. Consequently, it will take much work for them to engage with people person to person (Peters & Malesky, 2008). The researchers also found that the real world might be a difficult place for certain people where they might not be accepted readily. Therefore, the online world allows them to explore themselves and people from a secluded yet comfortable place.

In the presence of mixed research on internet gaming and its effect on youth, the current study investigated the phenomenon in the local population.

## **Methodology**

### **Research Design**

The quantitative method was used in the current study, and correlational design was used to examine the relationship between variables.

### **Sample and Sampling Strategy**

The purposive sampling technique was used in the current research because the primary purpose focuses on the population's particular features that interest 120 students selected from the different educational institutes in Lahore. The sample selected was within the age range of 19 to 27 years. Data was collected by using face-to-face administration.

### **Inclusion Criteria**

- Individuals who play PUBG.
- These students have been playing PUBG for the last six months.
- Age range 19-27.

**Table 1 Descriptive Statistics of Demographic Information Sheet (N = 120)**

Variable	<i>n</i>	%
<b>Gender</b>		
Female	40	66.7
Male	80	33.3
<b>University</b>		
Public	17	14.2
Private	103	85.5
<b>Family System</b>		
Joint	58	48.3
Nuclear	62	51.7

### Assessment Measures

In this research, three measures were used, along with a demographic questionnaire.

#### Demographic Questionnaire:

A self-constructed demographic questionnaire by the researcher is used to collect information about the participant's personal profile, such as age, gender, family system, and amount of time spent playing the games.

#### Internet Gaming Disorder Scale (ICDS9 - SF):

The scales are brief. It has only nine items (Pontes et al., 2014). The scale measures the magnitude of internet gaming disorder.

#### Social and Emotional Loneliness Scale for Adults (SELSA):

The scale has thirty-seven statements on which respondents report the magnitude of different dimensions of their loneliness (DiTommaso & Spinner, 1993).

#### Social Interaction and Anxiety Scale (SIAS):

The scale has twenty statements, which are rated on a Likert-type scale. The scale gauges distress and anxiety (Mattick et al., 1989).

#### Demographic Information:

The current study's demographic question was developed to ask general information, including age, gender, education, duration of playing the game, family status, nuclear or joint or RP in the game.

### Procedure

For the current study, the researchers sought institutional approval. The researchers sought permission to use the relevant scales, which was granted. The sample size for the current study was capped at 120 men and women who played online video games, i.e., PUBG. The participants were selected from university campuses. Ethical guidelines were maintained. The participants were described the nature and purpose of the study, and their privacy was ensured. They were told they could leave the research at any time with impunity. The results of the study were tabulated, calculated, and presented.

### Statistical Analyses

Pearson product-moment correlation coefficient analysis was performed to see the relationship among variables.

## Results

The current study examined the relationship between social competence, social interaction, and online game playing. Social interactions and social competence were administered in their original form. The data was analyzed using descriptive and inferential statistics—first, the reliability analysis of all measures, after which Cronbach's alpha and descriptive were analyzed. In the second step, Pearson product-moment correlation was computed to see the relationship among the main variables: social interactions and social competence. In the third step, hierarchical multiple linear regression analysis was carried out to examine the relationship among online gaming, social interactions, and social competence. Descriptive and reliability were carried out for each assessment measure.

**Table 2 Cronbach's Alpha and Descriptive Statistics Reliability Analysis of Scales**

Variables	<i>k</i>	M (SD)	$\alpha$
Internet Gaming Disorder Scale (IGDS9)	9	13.55 (7.11)	.82
Social Interaction and Anxiety Scale (SIAS)	20	51.85 (164.77)	.71
Social and Emotional Loneliness Scale for Adults (SELSA-S)	14	31.63 (13.64)	.89

*Note.* *k* = Number of items; *SD* = Standard Deviation; *a* = Cronbach's Alpha

In Table 2, a Cronbach's reliability analysis was run out on all three scales. The results signify that all scales are valid and have good reliability.

**Table 3 Correlation among Online Gaming, Social Interactions and Social competence for**

Variable	1	2	3	4
Average Time Playing video games per day	-	.40***	.24**	-.05
IGDS9	.53***	-	-	.10
SIAS	-	-	-	.05
SELSA	-	-	-	-

*Note.* \*\* $p < .01$  \*\*\* $p < .001$

Pearson product-moment correlation was carried out to assess a relationship among demographic variables, i.e., age and gender, duration of time spent playing online gaming, and social competence and social interaction. The results of the correlational analysis, summarized in Table 1, indicate that IGDS9 scores are positively and significantly associated with SIAS scores and the average time spent playing video games (per day). SIAS scores were also positively and significantly associated with the average time spent playing video games (per day), though they did not correlate with any other variable. SELSA scores did not show any significant association with any variable.

## Summary of Findings

- The Pearson Product Moment Correlation showed that IGDS9 scores are positively associated with SIAS scores but not SELSA scores. Average time spent playing video games (per day) is also associated positively with IGDS9 scores and SIAS scores but not with SELSA scores.
- The simple linear regression analysis showed that IGDS9 scores can significantly predict SIAS scores but not SELSA scores.

## Conclusion

The current study explored the relationship between social interactions and social competence with online gaming. In this chapter of discussion, we have related the results of the current study hypothesis to the support of previous research and discuss the results with detailed support and evidence. The chapter briefly discussed the results of the current study in light of previous research.

It was hypothesized that online gaming has a significant relationship with social interactions. The results supported this hypothesis. The relationship between online gaming and social interactions was found to be significant. The results showed that people who played online games had positive and significant social interactions with others. Literature supports that in online gaming, individuals also value social interactions.

Yee (2006) thinks that the realm of online games allows for an extension of the self into a new vista of social exploration. The result of the current study bodes well with previous studies, which highlight the social nature of online games where playing the game is not only the only end game, but social interactions and liaisons are also an essential part of the whole experience. As suggested above, Peters and Malesky (2008) opined that online gaming provides a haven for individuals who feel challenged to interact with one another in the physical world. People with social anxiety and individuals who are more sensitive to not being accepted find online social liaisons to be much more relaxing where they are sheltered from the realities of life.

Results of the current study indicate that playing online games has no negative relationship with social interactions. There is evidence that supports the results. A study examined the social interactions occurring within and outside of online gaming. Nine hundred and twelve participants were selected from 45 countries. In forty-five countries, online gaming was found to be highly socially interactive, and the environment in the game provided the opportunity to build significant social and sentimental relationships. Enjoyment becomes a part of online gaming, also supporting social interactions. Thus, the study supported that online gaming is highly social, helping make life-long and partner percentages high. Online games allow players to express their feelings in an imaginary world as it is challenging to show in reality. Online games provide a platform where teamwork is encouraged and fun can be experienced (Cole & Griffiths, 2007).

According to Yee, 2006 online games encourage social interactions and cause new relationships to form and maintain. His study found that 57 % of online gamers form friends in games, and 51% meet these friends in real life and maintain their relationships.

A study aimed to analyze the social impact of online gaming by employing a longitudinal design survey was conducted among 2883 online gamers. Researchers investigated that the progress of problematic usage influenced the probable reason for playing online games. It was observed that self-regulatory activity played an essential role in avoiding problematic use and its adverse outcomes. Using online games decreased loneliness and improved social integration among players. Finally, researchers suggested that online games helped individuals to healthy recreational behavior and enhance their capabilities (Fleming et al., 2006). However, the research of the current study suggests that individuals feel otherwise.

The results also suggested the relationship between demographic variables, i.e., age, gender, family system, and tool used for playing online games. The results revealed that age had a negative significant relationship with playing online games. The present study revealed that an important aspect was that males tend to play more online games than females. The current study shows that males are more interested in playing online games, as many males participate in research. A body of literature points towards the gender difference among men and women. Jansz and Martens



(2005) and Yee (2006) contend that women play far less time on online games. In other words, men stay online playing games for significantly more time.

The current study revealed that playing online games was positively associated with the person's social competencies, which meant the more a person spends time gaming, the more he develops social competencies. For instance, the amount of playing increased. On the other hand, social competencies increased. The results show that the amount of playing online games was also positively associated with the social interactions of individuals. The scores of social interactions were not positively associated with an individual's social competence. It means the social interactions of individuals were not enhancing social competencies, or social interaction was not a predictor of social competencies. However, both variables were increasing with playing online games.

Through our research, we found out that online gaming is much more a social activity, and it breaks some stereotypical beliefs about online gaming. The current study focuses on examining the relationship between online gaming, social interactions, and social competence among university students. By considering the current study's results, online gaming has multiple impacts on individuals. It directly affects an individual's social interactions and enhances their social competence. Therefore, online gaming has a significant relationship with social interactions and competencies.

Moreover, the study suggests that the more time individuals spend online gaming, the more they establish social interactions. The duration of time is also positively associated with developing social competence in youth. As the duration of online games increases, social interactions and competencies also increase.

### Suggestions

- Future research should study the more diverse patterns of age and other variables.
- It is also suggested to repeat this research with a longitudinal research design. There is a need to observe the social interactions of students who continue to play online games and increase their playing time compared to those who do not.
- Future research needs to work with a larger sample size of children and adolescents who play online games, with the results being generalizable and helping to understand both the positive and negative aspects of online games.

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