



The Relationship between Loneliness and Game Preferences of Secondary School Students

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Abstract

Computer and video games have become a popular form of entertainment among adolescents and adults. Day by day, the numbers of computer and video game players have increased significantly. According to the "2014 Essential Facts About the Computer and Video Game Industry" report released by the Entertainment Software Association (ESA) in April 2014, total consumer spend on game industry has been \$21.53 billion dollars in 2013. Recently, many researchers concentrate on the more negative aspects such as excessive play and addiction of adolescents' computer game playing. However, the loneliness has been found to be one of the essential predictor of game addiction. The purpose of the current study was to determine the relationship between the loneliness level and game preferences of 5th, 6th, 7th, and 8th grade students. To accomplish this purpose, survey method was used and the data were obtained by a game playing habits and preferences questionnaire and loneliness scale. The participants of the study consist of 843 secondary school students, ranged from 11 to 14 years, in Istanbul, Turkey. The analyses of obtained data were presented and discussed at the results and conclusion section of the study.

1. Introduction

For least 30 years, computer and video games have increasingly become popular form of entertainment and have replaced more traditional games as leisure activities among adolescents and adults. Today's computer and video games are enjoyed by players all ages and backgrounds, and they spend a good part of their leisure time on playing computer games. Day by day, the numbers of computer and video game players have increased significantly. According to the "2014 Essential Facts About the Computer and Video Game Industry" report released by the Entertainment Software Association (ESA) in April 2014, %59 of Americans play video games, the average years of game players are 31, the average number of years gamers have been playing video games are 14, %77 of gamers play with others at least one hour per week, and total consumer spend on game industry has been \$21.53 billion dollars in 2013 [1].

Too much time spent on game play certainly cause problems in other daily life activities and results in negative outcomes. Given the increasing sales of computer and video games and the popularity of this medium among adolescents and adults, policy makers, scholars and the general public have expressed concern that some players may present with pathological patterns of video game use that interfere with life functioning [2]. Recently, many researchers concentrate on the more negative aspects such as excessive play and addiction of adolescents' computer game playing. In the last decade, there is a significant increase in the number of studies examining various aspects of problematic computer and video game play [3] [4] [5] and addiction [4] [6] [7].

In results of many researches, negative outcomes were found for health related aspects, such as problematic sleep patterns [8], or lower psychosocial wellbeing [9], as well as personal function indicated lower academic achievement [10]. However, the loneliness, which is one of the important subcategories of internet addiction and a predictor of pathological internet use [11], has been found to be one of the essential predictor of game addiction [4] [12]. Amichai-Hamburger and Ben-Artzi (2003), in their descriptive study, aimed to examine the relationship between extroversion, neuroticism, differential Internet use, and loneliness. They conducted a survey, with 85 participants drawn from the departments of Psychology, for determining the relationship between frequency of Internet usage and loneliness level and anxiety, distress, and emotional liability. Their results indicate that for men, the use of Internet services is not related either to loneliness, neuroticism, or extraversion. However, for women, loneliness is significantly related to both neuroticism and the use of social services in the Internet [13]. In another study Stetina, Kothgassner, Lehenbauer, and Kryspin-Exner (2011), aimed to

examine problematic gaming behavior and depressive tendencies among people who play different types of online-games. Their research addresses often discussed fundamental questions regarding problematic gaming behavior, depression and self-esteem of online-gamers. Results of their research indicate that MMORPG users show more often problematic gaming behavior, depressive tendencies and lower self-esteem compared to users playing other online-games [14]. In the literature, a majority of studies on determining the predictors of problematic game playing and game addiction focused the online game playing habits of college students or adults. Little has been researched about the relationship between preferences and habits of secondary school students and psychological loneliness characteristic. For these reasons, this study was aimed to determine the relationship between the loneliness level and game preferences of 5th, 6th, 7th, and 8th grade students. In this study following research questions will attempt to answer;

- Is there any relevance between time spent to game playing per week and loneliness level of secondary school graders?
- Is there any relevance between how many years they have spent on playing computer game and loneliness level of secondary school graders?
- Is there any significant difference between gender and loneliness level of secondary school graders?

2. Method

The purpose of the current study was to determine the relationship between the loneliness level and game preferences of 5th, 6th, 7th, and 8th grade students. To accomplish this purpose, survey method was used and the data were obtained by a game playing habits and preferences questionnaire and loneliness scale.

2.1 Participants

The participants in this study were 843 individuals, 462 (54.8%) males and 381 females (45.2%), from two different secondary schools in two districts in Istanbul. The distribution of participants were following; 330 of them 5th grade (39.1%), 261 of them 6th grade (31.0%), 158 of them 7th grade (18.7%), and 94 of them 8th grade (11.2%) students. A total of 950 survey delivered by researcher in two school, 872 students completed this survey with a response rate of 91.8%, but 29 participants were removed from the data analysis due to large amounts of missing data. Participants were mostly around the age of 11-14 years old.

2.2 Data collection tools

Student Information and Game Preferences Survey: A personal information and game preferences survey, which contains questions about children's grade, gender, computer game experiences, preferences of computer games, time for spending playing games per week, was prepared by researchers in order to determine children's game playing characteristics.

School-Based Loneliness Scale for Children (SLSC): SLSC was developed by Asher, Hymel and Renshaw in 1984 [15] and revised by Asher and Wheeler in 1985 [16] and it has been adapted to the Turkish by Kaya in 2005 [17]. The original scale consists of 24 items, assessing children's feelings of loneliness and social dissatisfaction, and all items were rated on a 5-point Likert-type scale from "Always true for me (scored 5)" to "That's not true for me (scored 1)". In the original scale result was found to be internally consistent (Cronbach's $\alpha = .90$) and internally reliable (split-half correlation between forms = .83; Spearman-Brown reliability coefficient = .91; Guttman split-half reliability coefficient = .91).

2.3 Analysis of collected data

The SPSS version 22.0 package software was used for analyzing collected data via "Student Information and Game Preferences Survey" and "School-Based Loneliness Scale for Children". The t-test was used to determine the significant difference between gender and loneliness level of students, and Pearson correlation analysis was conducted to determine the relevance between time spent to game playing per week and how many years they have spent on playing computer game and loneliness level.

3. Results

In order to investigate whether relevance between times spent to game playing per week and loneliness level of secondary school graders, Pearson correlation statistical analysis was performed.

According to analysis results, the mean time spent to playing computer game per week was 10.39 hours ($SD=9.72$), and loneliness scale mean score was 25.97 ($SD=11.54$). Analysis results can be seen in Table 1.

Table 1. Pearson correlation results for time spent per week and loneliness level

		Loneliness level
Time spent per week	Pearson Correlation	.196
	Sig. (2-tailed)	.000
	N	843

As shown in Table 1, there was a statistically significant positive correlation between times spent to playing computer game per week and loneliness level of students ($r=.196, p<.01$). As a result of this analysis, it can be said that the students who spend more time to playing computer game are lonelier than others.

In order to investigate whether correlation between how many years they have spent on playing computer game and loneliness level of secondary school graders, Pearson correlation statistical analysis was performed. The mean spent year of participants to playing game was 2.31 years ($SD=0.93$). In the Table 2, the results of performed statistical analysis in order to answer the second research question can be seen.

Table 2. Pearson correlation results for spent years to playing game and loneliness level

		Loneliness level
Spent years to playing game	Pearson Correlation	.10
	Sig. (2-tailed)	.780
	N	843

As shown in Table 2, there was not a statistically significant correlation between how many years they have spent on playing computer game and loneliness level of students ($r=.10, p>.05$). When the average gaming years of students examined (2.31 years), it can be said that they are new gamers. Therefore, the no significant relationship between spent years to playing computer game and loneliness level may be observed.

Last of all, in order to answer the third research question independent sample t-test was performed and analysis results were presented in Table 3. The mean loneliness score of female and male students was respectively 25.69 ($SD=12.08$) and 26.20 ($SD=11.10$).

Table 3. Independent sample t-test results of gender and loneliness level of students.

Gender	N	Mean	sd	df	t	P
Female	381	25,69	12,08	841	-.631	,528
Male	462	26,20	11.10			

According to results, there was not a significant difference between gender and loneliness level of students ($t_{(841)}=-.631, p>.05$). Although it is possible to find studies in the literature which defend the gender is a predictor of loneliness, for only this study, we can say that the gender factor was not a predictor of loneliness level.

4. Conclusion

The purpose of the present study was to reveal relationship between loneliness and excessive computer game playing which are two major problems among adolescents nowadays. The results of this study shows us that much times spent to playing computer or video games can cause psychological problems such as loneliness. Loneliness is an important psychological problem which



typically includes anxious feelings about a lack of connectedness or commonality and it may be a symptom of another social or psychological problem, such as chronic depression, and antisocial and self-destructive behavior. Moreover, loneliness often has a negative impact on learning for children in these ages. As researchers and parents, we know that higher levels of interaction with friend can improve well-being and social relationships are vital predictor of quality of life for adolescents. Therefore, parents should encourage their children to make friends and play with them at least one – twice a week, instead of excessive computer or video game playing. Above all, parents should spend more time with their children and try to communicate and understand them.

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