# Comparing the Social Skills of Students Addicted to Computer Games with Normal Students

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## Abstract

**Background:** This study aimed to investigate and compare the social skills of students addicted to computer games with normal students. The dependent variable in the present study is the social skills.

**Methods:** The study population included all the students in the second grade of public secondary school in the city of Isfahan at the educational year of 2009-2010. The sample size included 564 students selected using the cluster random sampling method. Data collection was conducted using Questionnaire of Addiction to Computer Games and Social Skills Questionnaire (The Teenage Inventory of Social Skill or TISS).

**Findings:** The results of the study showed that generally, there was a significant difference between the social skills of students addicted to computer games and normal students. In addition, the results indicated that normal students had a higher level of social skills in comparison with students addicted to computer games.

**Conclusion:** As the study results showed, addiction to computer games may affect the quality and quantity of social skills. In other words, the higher the addiction to computer games, the less the social skills. The individuals addicted to computer games have less social skills.

**Key words:** **Computer games, Addiction to computer games, Social skills, Guidance school students.**

## Introduction

One of the important aspects of human growth is the socialization process. Social development ensures a safe and healthy relationship with individuals. Along with the growth in other academic skills, considering the social aspects of life and gaining necessary requirements for a healthy relationship with others is one of the challenges facing growing children and adolescents.[1] Socialization is a process in which the individual's norms, skills, motivations, attitudes and behaviors are formed so that the individual recognizes his/her current or future role in the desired society. In this process, acquisition and deployment of social skills and ways of communicating and interacting with others are the main components of social developments particularly among children and adolescents.[2]

Since an important part of social skills is acquired through playing games in childhood, nowadays, despite improving technology, we can observe the advent of modern phenomenon in the children's new game world which is a milestone in the structure and content of the children's games.[3] Children and adolescents in the current world are extremely affected by the mentioned games. And considering the importance of computer games in the social life of this age range, computer games have inevitably allocated the major part of socialization of children and adolescents to itself.[4] The attractiveness of computer games for children and adolescents have caused them to be more acceptable among other playing instruments.[5] For example, in a study performed by Griffiths et al (1998), adolescents were asked to explain the advantage and disadvantage of computer games. In that study, individuals described their eagerness to computer games as having fun, excitement and challenges. A few percentages of the players mentioned the benefits of computer games as improving mental-dynamic skills. One third of the subjects believed that the disadvantage of these games was due to game addiction.[6]

Computer games represent the first digital media technology which is applied for socialization of a generation in a large scale and often most of the teenagers in other countries are using these games.[7] But on the other hand, excessiveness in playing these games has caused some concerns about the possible side-effects they have on the players. Major concerns about these games are due to two main factors; first,

the amount of time children spend and second, the nature of these games, particularly, when children spend their time playing to compensate for ignoring other educational-social activities and leisure time. They are potentially harmful, because computer games may be replaced by other activities such as homework, free reading or exercising. It has been observed that children addicted to computer games tend to play more and avoid social relationships.[8] Recent studies indicated the significant statistics about the excessive use and addiction to games. However, the figures are various; for example, in the United State, one out of 10 is addicted to computer games.[9] They may also be used as means to satisfy psychological needs of players who play games in an excessive way. As Wan and Chiou mentioned in their study, these needs are mentioned as need for fun, entertainment and recreation, overcoming psychological mechanisms, running away from reality, mutual social interactions, need for arousal and competition and need for feeling powerful expressions[10], like those who seek computer games in order to satisfy their social interaction because they would experience anxiety and distress facing the real world's social situations. The players may practically prefer all the social interactions and relations occurring in the virtual environment to the real world, and they provide the need for stabilizing the social situation and sense of belonging through interaction with other playmates in the game.[11] Moreover, recent studies showed that excessive use of computer games (more than 20 hours a week) would lead to negative impact on health, negative moods, depressive syndrome and weak social interactions.[12]

On the whole, currently, by progressing mass media and electronic entertainment we are facing one of its aspects which is computer games; besides, the premier and main users are children and teens. Therefore, we are all aware that adolescence is one of the most sensitive, decisive and determinant stages in human life. So, it is necessary to emphasize more on the effects and consequences of addiction to computer games on children and adolescents and their world. In the present study, focus has been placed on the efficacy of adolescents on relationship and interactions with others or in other words, quality and quantity of the students addicted to computer games. Although there are not many studies and researches and detailed

demographic data from users of computer games in Iran, more efforts and empirical research should be conducted. Therefore, based on the above mentioned research findings of the present study, comparison of social skills of students addicted to computer games and normal students is needed.

## Methods

This study compared social skills in students addicted to computer games and normal students in the second grade of public secondary school in the city of Isfahan. Sampling was performed using cluster random sampling method; first, using simple random sampling, three educational districts (2, 3 and 4) of Isfahan education board were selected, then two boys' secondary schools and two girls' secondary schools from each district were selected randomly. Statistical sampling was carried out using Cochran formula and 600 samples were chosen which selected 100 subjects from each school randomly. In total, 564 subjects out of 600 were willing to fill out the questionnaires.

The research instruments consisted of a scale that was composed of three main parts. The first part (which was created by the researcher) included questions about demographic characteristics of the subjects and also questions about the quality and quantity of the computer games. The second part included a translated questionnaire of computer game addiction. Addiction to games means absorption of an individual in a game so that he/she cannot confine the duration of the game; and if the individual tries to stop playing, he/she would be so angry and upset.

The content of the questionnaire was translated into Persian and the Persian version was compared and revised by university professors and English language experts. Then, the Persian version was translated into English again by an English translator expert in order to verify the validity. Since the validity and reliability of this questionnaire had not been verified within the country yet, 30 subjects were selected as the preliminary and pilot study and the questionnaire was distributed among them. Thereafter, during some interviews with the subjects, vague and uncertain questions were determined in the questionnaire and some changes were achieved which were two questions added based on the Iranian culture.

After analyzing the data, the reliability coefficient of 0.76 was obtained for the questionnaire. Translated questionnaire of addiction to computer games was from Anuthawarn.[13] It was based on Likert scale including 19 five-choice questions which scored from 1 (never) to 5 (always). The criteria of having addiction to computer games was set up based on the subjects' average scores; an average score of 1 to 2.33 meant they would be categorized in the non-addicted group and an average score of 2.32 to 5 demonstrated they would be categorized in the addicted group.

The third part included the social skills questionnaire (TISS) including 39 five-choice questions scored from 1 (very low) to 5 (very much). The term "social skills" means cooperation, involvement, assertiveness, accountability and observable acquired behaviors which enable the individual to have more effective interactions with others and stops him/her from irrational social reactions.[14] Indeed, this questionnaire consisted of two parts; first, positive social behavior such as cooperation, community participation, altruism and ability to express feelings and the second part; anti-social behavior such as aggression, low self-esteem, social anxiety, conceit and insolence. Question numbers 3, 6, 7, 9, 11, 15, 17, 18, 24-26, 28-30, 33-35 and 37-39 were related to positive social skills. Question numbers 1, 2, 4, 5, 8, 10, 12-14, 16, 19-22, 23, 27, 31, 32 and 36 were related to anti-social behaviors.

In fact these behaviors were about the way the individual interacted with the peers. For the positive part of this questionnaire, a validity coefficient of 0.81 and for the negative part a validity coefficient of 0.80 was obtained using Cronbach's alpha method. TISS questionnaire consisted 40 questions designed by Inderbitzen & Foster (1992) and its reliability for the positive part was reported as 0.90 and for the negative part as 0.72, and its internal consistency was reported as 0.88.[15] The validity of this questionnaire was obtained by Amini (1999) in Tehran for female students of the second grade of secondary school of which 20 questions on the positive part had the validity coefficient of 0.71 and 20 questions on the negative part had the validity coefficient of 0.68. It is noteworthy to mention that one of the questions (question number 23) was removed from the list due to lack of appropriate cultural condition with our society.[16]

Table 1. Descriptive statistics for addicted and non-addicted groups

| Variable | Status | Frequency | Mean | SD |
|---|---|---|---|---|
| Positive social skills | Non-addicted | 464 | 63.48 | 13.600 |
| | Addicted | 93 | 57.98 | 13.235 |
| Negative Social skills | Non-addicted | 464 | 71.11 | 12.161 |
| | Addicted | 93 | 61.80 | 11.534 |
| Social Skills | Non-addicted | 464 | 134.58 | 20.699 |
| | Addicted | 93 | 119.15 | 21.300 |

## Results

The study population included 564 subjects including 263 females (46.6%) and 301 males (53.4%). After implementation and reviewing the test results on addiction to computer games, 93 subjects (17.1%) were categorized as the addicted group and 467 subjects (85.5%) were categorized as the non-addicted or normal group.

The difference between the average score of computer game addiction in males and females was significant (P < 0.05). This means that the average score of computer game addiction in males is statistically higher.

For comparison of the social skills, TISS questionnaire was implemented for both groups. The results are mentioned in table 1.

Non-addicted subjects have higher positive social skills in comparison with the addicted group (P < 0.05).

## Discussion

The results of the present study showed that in general, there was a significant difference between social skills and addiction to computer games. In addition, they showed that the individuals who were addicted to these games had lower social skills than those who were normal. The results of the present study are in accordance with the study of Griffiths (1998) which showed children addicted to computer games only tend to play games and avoid social relations.[17]

Computer games are one of the most exciting activities of the 21th century.[18] These types of games started from three decades ago and have persuaded many adolescents and children to spend a great amount of their time playing them.[19] Computer games may satisfy the natural needs met in social interactions and will lead to social isolation. This isolation and loneliness may cause reduction in individual social interactions

with others and will finally reduce the individual's social skills.[20] A study of Selnow (1984) on American children between 10 to 14 years old showed that computer games in this age group are concerned with specific pleasures created in children. The major cause of understanding continuance of computer games in children are as the following:

1. The players have realized that computer games were more enjoyable than companionship with others.
2. These games can only give some information about others and their behavioral methods used against others.
3. These games can create feelings like companionship with friends and help some of the children fill their solitude.
4. These games let the player participate and involve in the game directly.
5. These games also provide a get away from problems in life. Concerns about computer games are that these games have violent and anti-social topics; therefore, they may create more aggressive and shocking tendencies in most players.[21]

On the other hand, playing these games caused some concerns about possible side-effects they may have on the players. Major concerns regarding these games are due to two main factors; first, the amount of time children spend on playing these games and second, the nature of these games particularly when children spend their time playing to compensate the price of ignoring other educational-social activities and leisure time. Therefore, if adolescents spend a large amount of their time on playing, they will get involved in an addiction that needs to spend lots of money and time. Addiction to computer games not only leads to financial problems, but also takes the place of more healthy leisure activities, reduces the educational and academic

performance of students due to lack of effort to do homework and also reduces the necessary opportunities for developing social skills due to playing computer games which are basically individual activities.[22]

In a study done by Klin et al (1991), the consequences of dependency to computer games were discussed. The results showed that the students who preferred computer games had more behavioral problems on other issues in comparison with other students.[23] Another point was the increase in playing computer games which consequently leads to decrease in contact and interaction with others that can stop the individual from learning opportunities for developing social skills effectively and efficiently. This can also remove the previous learned skills, because social skills are typically taught[24] and in order to continue needs to receive correction and feedback.[25] Generally, it seems that in the computer games' topic, the more decisive matter in anticipating social skills, in addition to time spending for the games, is the way they are played and their type and genre.

*Study limitations*
1. In the present study, to evaluate the individuals' social skills, we only relied on the data obtained from the questionnaire. It may be better to use other tools such as observing the individual's behavior in natural environments like home, game nets and interviewing individuals that are associated with the subject.

2. Due to the low number of studies conducted on addiction, unfortunately, there is no comprehensive definition and criteria for addiction to computer games to assess addiction of the players in Iran.

3. Using the questionnaire with the subjective role of the students for data collection.

4. Limitation of the study samples to students in the second grade of secondary schools in Isfahan.

*Practical Suggestions*
1. Since studies about computer games, particularly about addiction to these games is something new and novel in our country, it seems necessary that researchers concentrate on this field and consider the other effects and consequences of these games among the Iranian society especially among children and adolescents.

2. The social skills questionnaire in fact, is the translated version of the TISS questionnaire which is valid in our society and culture. Therefore, it seems necessary to check its reliability and standardization to see whether its categories and subjects are in accordance with our society, and whether it needs to be replaced with other more appropriate alternatives.

3. In order to increase the generalization rate and citing the resulted findings of the study, the study population must include all the districts and educational regions of Isfahan city.

4. It seems necessary to categorize and define computer games comprehensively and evaluate the tendencies of each individual to certain types of games.

5. It would be much better if the data were provided using sources of information such as parents and peers in the future studies.

*APPENDIX*
| | |
|---|---|
| 1- Fromme | 2- Gunter |
| 3- Blanchard | 4- Wan & Chiou |
| 5- Danforth | 6-Parker |
| 7- Antuawarn | 8-Smith&Travis |
| 9- Inderbitzen | 10- Foster |
| 11- Griffiths | 12- Funk |
| 13- Kirsh | 14- Zimbardo |
| 5- Selnow | 16- Egli |
| 17-Klin | 18- Aggrel |

**Conflict of interest**: The Authors have no conflict of interest.

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# مقایسه مهارت‌های اجتماعی دانش‌آموزان معتاد به بازی‌های رایانه‌ای و دانش‌آموزان عادی

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## چکیده

**مقدمه:** هدف این پژوهش، بررسی و مقایسه مهارت‌های اجتماعی دانش‌آموزان معتاد به بازی‌های رایانه‌ای و دانش‌آموزان عادی بود. متغیر وابسته پژوهش حاضر مهارت‌های اجتماعی بود.

**روش‌ها:** جامعه آماری پژوهش شامل کلیه دانش‌آموزان مقطع دوم راهنمایی مدارس دولتی شهر اصفهان بود که در سال تحصیلی ۸۹–۱۳۸۸ مشغول به تحصیل بودند. حجم نمونه پژوهش ۵۶۴ نفر بود که با استفاده از روش نمونه‌گیری تصادفی خوشه‌ای انتخاب شدند. ابزارهای اندازه‌گیری، پرسش‌نامه اعتیاد به بازی‌های رایانه‌ای و پرسش‌نامه مهارت‌های اجتماعی (The Teenage Inventory of Social Skills یا TISS) بود.

**یافته‌ها:** پژوهش نشان داد که بین مهارت‌های اجتماعی دانش‌آموزانی که به بازی‌های رایانه‌ای اعتیاد دارند با دانش‌آموزان عادی به طور کلی از نظر آماری تفاوت معنی‌داری وجود دارد. همچنین نتایج به دست آمده نشان داد که دانش‌آموزان عادی نسبت به دانش‌آموزانی که به بازی‌های رایانه‌ای اعتیاد دارند از مهارت‌های اجتماعی سطح بالایی برخوردار می‌باشند.

**نتیجه‌گیری:** همان گونه که نتایج پژوهش حاضر نشان داد اعتیاد به بازی‌های رایانه‌ای بر کم و کیف مهارت‌های اجتماعی تأثیر گذار است؛ به عبارت دیگر، با افزایش اعتیاد به بازی‌های رایانه‌ای، مهارت‌های اجتماعی کمتر می‌شود و افرادی که به بازی‌های رایانه‌ای اعتیاد دارند، از مهارت‌های اجتماعی کمتری برخوردار می‌باشند.

**واژگان کلیدی:** بازی‌های رایانه‌ای، اعتیاد به بازی‌های رایانه‌ای، مهارت‌های اجتماعی، دانش‌آموزان مقطع راهنمایی.