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# Relationship between Gaming and Internet Addiction in Adolescents with Academic Achievement

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#### **Abstract:**

This study aimed to investigate the relationship between video games and addiction to the Internet and academic achievement were examined. Correlative study population was consisted of female students at Birjand in 2011-2014. The sampling multistage cluster and the students enrolled 481 subjects (a) and after obtaining informed consent, a questionnaire with 20 questions related to Internet addiction Kimberly Young, which in its validity and reliability has been confirmed, as played by students completing GPA first semester of the academic year before was used as a measure of academic achievement. Due to the qualitative and quantitative variables studied in this research, the descriptive statistics of frequency distribution table, the mean and standard deviation of the Pearson correlation and regression analysis to test the level of 0.005 analyzed. Based on the results of Internet addiction and computer games mean score of 100 score was 18.8 .37.6% of students had Internet addiction. 50.7% of students had academic success. The Internet addiction in students with high socio-economic class was much higher than students with low socio-economic class.

**Key words:** Internet addiction, computer games, educational attainment, ICT

## Introduction

With the dawn of the third millennium has witnessed dramatic changes in technology and the impact of social, cultural and professional from it.

Revolutionary electronics, information explosion, many quantitative and qualitative differences in computer revolution in the world in the last two decades has brought with it and the world has become a unit word. Most challenging, interesting and most important developments in the field of computer and information revolution that has taken place, the most important new technologies of communication and transfer of information exchange in a wide range. Restrictions cannot be imagined for it. The globe, the Internet has become part of people's daily life including mental psychology in the medical profession (Asgari, 2008). The present age is the age of information revolution, the computer revolution, advanced communication technologies, the era of the global village and so it is called realization (Manteghi, 2008).

No doubt someone who sits for hours in front of the computer and spend time chatting, email, viewing photos, and make lewd scenes and their families regarding the use or the quality, lying, Internet addiction or behavioral dependence on the internet, regardless of whether it is merely a problem of disease and injury, psychological or social phenomenon is regarded as a chronic, relapsing systemic with serious injuries, physical, financial, family, social, psychological along. Or even the time to relax, have dinner or lunch is going to have more energy and motivation for practice. On the other hand, such people subjugated civilization, culture, technology and the trappings of the Western world and in relation to their national pride and culture is ignored (Karamati moghadam, et al, 2007).

Dependent (addicted) subsequently dependence on the personal and social functioning is severely reduced. Use of Internet in many advanced countries entered the classroom and in educational and decreased study habits, grades drop, absent from classes, probation and others. Thus, the group of teens makes up a large Internet audience, learning and school achievement debate arises, because academic achievement is one of the most important concepts in educational psychology research and extensive theoretical and experimental studies are devoted and various models (Carroll, 1989) has been developed to explain it. According to the above mentioned aim of this study was to examine the relationship between computer games and internet addiction with third and fourth grade students of high academic achievement in the city of Birjand. Media with the release of different ideas and different ways. social spaces have significantly changed, this is believed to have caused the bulk of the changes in recent decades in industrialized or developing countries, due to the influence of mass media. Magazines, newspapers, computers, websites, world of news, thoughts, sounds and images are placed in front of man and changes in society have created, much faster and more dramatic changes such as the transition of former agricultural and industrial society. The intensity of the change in lifestyle during adolescence is of particular importance. So that is now a growing concern in the field of active lifestyle and the effects of this type of lifestyle on the health of adolescents there (Amini et al, 2006). There are also warning signs that can help the individual to assess Internet addiction (Sempsey, 1997).

Suler (2005) believed that the uniqueness of the Internet is the fact that can be available to everyone, everyone's ability to pay interest and the fact that users can remain anonymous. However, despite positive benefits of the Internet and communication services such as educational, its aspects of the negative aspects are as well. Students may be exposed to

violent and illegal content and images used on websites, random or intentional access to this content may. Both specialists are experts with respect to irreparable damage to children and youth through such programs reaches, in particular, issues such as sexual violence, substance abuse, antisocial behavior, loosening the foundations of the family and the widespread diffusion of crime, has repeatedly warned (Schroeder, 2004).

Kraut et al (1998) in a study of long-term model that according to the excessive use of the internet, people from around the community and the real social connections with the elimination of social interaction and control over their lives can cause loneliness, depression and ultimately provide. The use of the Internet, causing feelings of frustration, loneliness, anxiety and mental health will be reduced overall. Most people use the Internet. In addition to its negative impact on their family life, less time with family speak and loneliness, depression, low self-esteem and academic performance, and it is mostly (Ranjbar et al, 2010). Internet addiction or excessive use of the Internet for personal injuries and socio internet is somewhat sometimes this disease with the phrase "Virtual Addiction" and the famous "Internet addiction" is mentioned.

According to available statistics, more teenagers and young Internet users in the world are now in America's 180 million Internet users, 40 million people are under 18, these figures rose in 2005 to more than 40 million users.

Iran has a young population (22.8% of the population are young), like other countries, young people, the most populous age group of Internet users in Iran are considered. Results of the National Youth Organization, in 2006, 1999 and 2005 shows that the largest number of Internet users is young people aged 18 to 28, so that in 10 years, 1,376 % in 2006, 19% in 2005, 29 percent of youth the Internet was used (Favanewz, 2012). The computer is like any other social phenomenon, some psychosocial outcomes to the intervention. One of the main

questions about the implications of the Internet and computer games researchers who are studying the effect of this phenomenon in the realm of educational, occupational, psychological, social and physical.

In other words, the fact that the individual's connection with the world of the Internet and computer games, human relationship affects person's considerable uncertainty as to the cause of this phenomenon.

Since the awareness of the challenges computer games and the Internet can provide any training, learning and development to facilitate adolescents, the major issue in this study is that the communication between the computer game and Internet addiction in adolescents with academic success there.

Today, computers and Internet connections are through a part of real life. Perhaps the most effective tool in today's world of Internet and computer technologies are taken into account. Internet and computer technology in all fields of science, business, education, culture, politics, etc., is effective; thus, the growing demand for Internet technology for many people with mental health problems and social relationships are healthy (Bahadori Khosroshahi and Hashemi Nosrat Abad, 2011).

The severity of this change in lifestyle is important in adolescence. So that is now a growing concern in the field of active lifestyle and the effects of this type of lifestyle on the health of adolescents there (Amin et al, 2006). Teen's easy access to the Internet at home, school, recreation centers, libraries as well as diversity of the Internet, the media has turned into a hub for teenagers. In 2005 more than 77 million children and adolescents have entered cyberspace (Ghomamy, 2005).

Teens are one of the age groups have shown a deep interest in the Internet. The media and the power absorbed by the diversity of people, a special place among this age group in the world has been found.

According to a new study by the Pew Research Institute of the Internet's impact on the lives of adolescents, about 93 percent of American teenagers are Internet users. The most common file contents like video, photos and text (instructional and non-instructional) act. Out of 28% were blog owners who prefer Internet to TV and cinema. Based on this study, boys and girls share the videos are interested in blogging and photo sharing (Young, 1998). Yang least four of the following symptoms for the diagnosis of Internet addiction should know: Sense of mental preoccupation with the Internet, you need to use the Internet with increasing amounts of time in order to satisfy, not having the ability to inhibit the use of the Internet.

A sense of restlessness and irritability when attempting to cut down or stop using the Internet, using the Internet as a way of escaping from problems or relieving the people, lying to family or friends in order to hide the value of being on the internet. Johanson (2003) in a sample of 3237 children aged 8-12 years showed that 95.1 of Norwegian teenagers use of computer games, 35.8% with continuous use of them, about 3.4 hours. They will spend their time in a week and 1.98 % of them are addicted to computers and computer games. Since the Internet is a global medium as a new phenomenon associated with the mass of the population, especially adolescents. The media can influence its properties, including mental health. The World Health Organization defines health as follows: The health state of complete physical, mental, social, and not merely the absence of disease or disability (Shamshiri Milani, 1997). Since adolescence is one of the most important and most rewarding times of life, therefore, addressing the mental health of adolescents not only for them but for their families, society and future generations beneficial?

To clarify the issue has signs and symptoms that the people have to be identified so that action in this area.

# Signs and symptoms of Internet addiction

Internet addiction behavior such as drug addiction, gambling, overeating, watching TV, etc. is considered mandatory. When using the Internet, it is difficult to solve professional, educational, and social work, family, financial, psychological and physiological cause for the individual, in addition to causing significant changes in mood and emotional (Omidvar and Saremi 2002).

Orzaki (1999) Internet addiction as a psychological problem has two categories of symptoms and signs

- 1- Psychological symptoms
- 2- Physical symptoms

Symptoms of internet addiction that are listed in the following table.

Table 1. Signs of Internet Addiction (Orzaki, 1999)

	, , ,
Psychological symptoms	Physical symptoms
1) a sense of wellbeing and	1) The psychological syndrome
satisfaction with one hand while	2) Fatigue Eye
using the computer.	3) migraine
2) Inability to stop the activity	4) back pain
3) spend more and more time with	5) Irregularity in eating and ignoring
the computer	some meals
4) absence of family and friends	6) lack of attention to personal
5) Feeling of emptiness, depression,	hygiene
moodiness when not using the	7) Sleep disturbance and changes in
computer.	sleep patterns
6) lying to the employer or family	
members about activities	
7) difficulty in school and work	

#### Prevention methods

To understand the concept of prevention should benefit from its objectives, the minimum goal of prevention is to "promote health, protect it from damage, and while damage restoration and minimize the suffering of the disability." These three

concepts together in a continuous process and protecting the health of charge cycles and prevention is a continuous process that cannot be achieved without the use of those two. The relationship between these three concepts can be found in Figure 5-2.

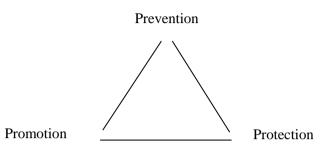


Figure 1. The relationship between the three concepts of prevention, promotion and protection (Tudor, 1996)

Gerald Kaplan in 1964 it was classified as a public health level, which was conducted in 1953 by Lival and Clark; mental health also will be examined at three levels, namely: primary prevention, secondary prevention and prevention. Primary prevention of delay and inhibition of internet addiction experienced by the general population is concentrated. Interventions aimed at primary prevention, preventing the onset of disease or disorder in a way that reduces the likelihood of its occurrence in a particular period (Kaplan, 2002 .) Secondary prevention, early intervention is diagnosing and treating the disorder with the aim that the prevalence and spread rapidly (the number of cases) is reduced by shortening. The purpose of screening and treatment is in its early stages. Therefore, it includes the following steps:

1) Reduction of symptoms, and 2) to limit the continuing prevalence of the disorder up to a minimum

Tertiary prevention: focus on groups of Internet addiction and its associated problems, such as running away from home or school, learning problems, crime suffer (Botvin & Botvin, 1997). Obviously, the more comprehensive and

preventive measures based on theoretical perspectives will be equally successful results. The consequence of this formulation and planning of preventive measures in dealing with the psychosocial damage is. It is proved that the treatment of this disorder is difficult and expensive user. In such circumstances, the importance is that the logical alternative treatment . It is supposed to prevent abuse of persons with Internet easier than treating this disorder. The purpose is preventing, delaying or preventing the onset of disease in the community. Prevention programs should be designed in such a way that develop protective factors and to reduce their risk factors. On the other hand, in order to develop effective prevention programs, protective factors, risk factors, and population subgroups at risk, it is necessary that certain cultural norms (Botvin & Botvin, 1997).

The review of literature related to computer game addiction and a lot of research on achievement outcomes and improve academic performance that has been continue to review them. Amin et al (2006) concluded from their research that 53% of participants in the user's computer games and 43% of them more than three hours a week to rest of the game does of Investigation. The prevalence of computer games for boys (68 percent) than girls (39 percent). Frequency of computer games for first grade students (63%) were in first place and the frequency of grade II, III and pre-university were 54, 57 and 50%, respectively. Frequency of computer games on students in (62%) than rural students (35 percent). Nava bakhsh(2011) [in their study showed a tendency to use the Internet and mobile phones are changing social values influence. Ballard& Wiest (1996) found those violent games. hypertension and cardiovascular disease, aggravation of heart and a feeling of hostility to the intervention. The children at Games of antagonism movement geared more kinetic react like children. In a survey of teachers, library staff and colleagues found that, according to 86 percent of their computer, using the

Internet, students do not improve curriculum efficiency. Because the Internet is so organized and curriculum issues to help them unrelated to properly get high scores on standardized tests does not help (Omidvar and Saremi 2002). According to the results of research and study there can be a relationship or lack of relationship between computer games, Internet addiction in adolescents with academic achievement of students in this study found the results obtained.

## Method

Due to the nature of subject, the research is finding a correlation between Internet addiction and computer games to academic achievement. The population studied in this research is that the results can be generalized.

All students in third grade and fourth strands of empirical literature and mathematical physics at long range plan are working. According to Table Statistical was 7000 that 382 students based on the number of samples. The accuracy of the questionnaire in this study sample consisted of 481 subjects. By students of third and fourth fields of literature, empirical and mathematical physics Birjand is the 2011-2014 school year. To analyze the data according to the qualitative and quantitative variables studied in this researching the descriptive statistics, frequency tables, mean and standard deviation.

Table 2. Frequency distribution of educational levels and fields of study

Variable		Frequency	Percent
Grade	Third	282	58.6
	Fourth	199	41.4
Field of course	Mathematic	117	24.4
	Experimental	227	47.4
	Humanity	137	28.3

Multistage cluster sampling was conducted in the area of education, so that the city of Birjand is divided into two regions: North and South The two middle school girls were selected from each region then by all students in the third and fourth experimental and mathematical literature randomly selected and enrolled students about the justification and objectives of the questionnaire was distributed among the students and collected. And inferential statistics using the Pearson correlation coefficient and regression analysis in 0.005 analyzed. To gauge Internet addiction Internet addiction Kimberly Young student questionnaire was used. In Iran, the Internet addiction test of 20 questions in the survey Nasti zaei (2009), Cronbach's alpha was 0.81. To measure the academic achievement of first semester GPA and a GPA of years ago pupils were used.

#### Results

# **Descriptive Statistics**

This study included 481 high school students in Birjand, age  $0.76 \pm 17.1$  years, with a minimum of 15 and maximum of 19 years.

Table 3. Frequency distribution of the studied variables related to the Internet at school

Variable		Frequency	Percent
Period using the	Less than 6	150	31.2
Internet	months		
	6 months to a	29	6
	year		
	1 to 2 years	33	6.9
	More than 2	187	38.9
	years		
	Indeterminate	82	17
hours of Internet Do not use		99	20.6
use per week	10 to 15 hours	335	69.6
	15 to 20 hours	8	1.7
	More than 20	39	8.1
	hours		

Based on the table above 38.9% of participants had used the Internet for more than two years and 69.69% of people with internet worked 10 to 15 hours per week.

Table 4. distributional indexes addiction score and GPA of students studied

Name of variable	Frequency	Mean	SD	Min.	Max.
The Internet Addiction	481	18.8	18.1	0	69
Semesters before	481	17.2	1.8	11.68	20
GPA years ago	481	17.1	1.7	12	20

Based on the above data, Internet addiction in students' mean scores were 1.18  $\pm$  8.18 and previous semesters 8.1  $\pm$  2.17 respectively.

Table 5. Frequency distribution of students' academic achievement in the study

Academic success		Frequency	Percent
With Acade	emic Success	235	48.9
Without	Academic	246	51.1
success			
Total		481	100

The above table is based on 48.9% of the students had studied academic success.

# Inferential statistics and hypothesis test results

Hypothesis 1: The relationship between Internet addiction and academic success of students there.

Table 6. The comparison of internet addiction on the academic achievement of students in the study

Variabl	e	with achievement N = 235	Academic	Without Academic achievement N=246	Mann-Whitney U test
		$Mean \pm SD$		$Mean \pm SD$	
The	Internet	$18.7 \pm 16.9$		$20.1 \pm 17.4$	Z=0.69
Addiction	on				P=0.49

According to the above table are significant differences in the mean scores of Internet addiction in terms of academic achievement were observed and the hypothesis H1 was not approved.

Hypothesis 2: The relationship between Internet addiction and there is a significant area of residence.

Table 7. Comparison of Internet addiction in terms of area of residence

Variable	with	Academic	Without	Academic	Mann-Whitney U
	achievement		achievem	ent	test
	N = 203		N=278		
	$Mean \pm SD$		Mean $\pm$ S	SD	
Score of Internet	14.6±16.4		23±16.9		Z=6.92
Addiction					P<0.001*

According to the table above for students residing in areas with high socio-economic class internet addiction score significantly are higher than students in the middle and lower socioeconomic class (p>0.001).

Table 8. Spearman correlation coefficient between average score of years ago, and internet addiction

Variable	Score of Internet addiction
Average of last year	R=0.005, P=0.92

### **Discussion and Conclusion**

The first hypothesis tested by Pearson's correlation coefficient showed a significant correlation was found between internet addiction and academic success and mean scores of Internet addiction in both groups there was no significant difference between successful and unsuccessful students. The result is the result of research he and colleagues (2009), but consistent with studies Asgari (2008), Young (1996); Damavand (2011) and Radwan (2009) are non-aligned there. For instance, Radwan

(2009) as a result of their study showed a significant relationship between internet addiction and academic achievement and negative (6.4%) Since the results of this study are inconsistent with some studies, perhaps one of the reasons for this failure to provide correct answers students in Birjand city is a cultural and social point average or specific conditions. To test the second hypothesis, the results showed that in areas with higher social class, higher Internet addiction scores of lower social class, and this difference was statistically significant. These findings are consistent with the findings of some studies. For example, some studies showed that between socioeconomic status and level of youth involvement in computer games, there is an inverse relationship. (Rose et al. 2005; Haningz and Thompson, 2004 and Lee et al, 2005, cited in Amin et al, 2006). For people addicted to the Internet are not yet sufficient data to say whether a particular class is significant or not. Moreover, there has been a lot of diversity among Internet users as to the definite statements.

#### Recommendation

- Parents looking for computer training, computer training courses to promote your skills to pass.
- Your children the proper way to use technologies (computer games, Internet, satellite and mobile) have been met, warn them about the dangers.
- The computer is in a room that has monitored the activities of their children.
- Except households, social institutions play an important role in this context that the proposal
- Schools are using technology to provide the proper training.

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