

*Full Length Research Paper*

# Relationship between Internet Addiction and Academic Performance among University Undergraduates

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The purpose of this study was to study the relationship between Internet addiction and academic performance among university undergraduates. The study also focused to examine the gender differences among students on internet addiction. The sample comprised of 359 university undergraduates. Their responses to the "Internet Addiction Scale" and GPA for the previous semester were collected and analyzed using methods including descriptive statistics, t-test, ANOVA, and simple linear regression analysis. The results suggested that internet addiction was a significantly negatively correlated with academic performance of university undergraduates. Results also suggested gender difference in internet addiction. Male students had higher internet addiction than female ones. Based on the above findings, some suggestions were proposed as a reference for practical applications and future research.

**Key words:** Internet addiction, academic performance, gender.

## INTRODUCTION

Internet is becoming a widely accepted channel for information exchange and networking. It is experiencing tremendous growth and development in its size and numbers of users all over the world. The benefits of the internet have been widely researched and include keeping in touch with friends, making vacation plans, managing finances, assisting with educational needs etc. Despite the positive effects of internet, there is growing literature on the negative effects of its excessive use (Chou and Hsiao, 2000; Frangos and Frangos, 2009). Internet addiction is a rather new research area, which has less than ten years history. The current study attempted to investigate the relationship between internet addiction and academic performance of the students.

Internet addiction is defined as, "an individual's inability to control his or her use of the internet, which eventually causes psychological, social, school, and/or work difficulties in a person's life" (Chao and Hsiao, 2000).

Research findings have shown that excessive use of Internet or Internet addiction adversely affects one's physical health, family life, and academic performance. Academic problems caused by Internet addiction include decline in study habits, significant drop in grades, missing classes, increased risk of being placed on academic probation, and poor integration in extracurricular activities. Besides, adolescent Internet addicts often suffer from severe psychological distress, such as depression; anxiety; compulsivity; feeling of self-effacement; fear that life without Internet would be boring, empty, and joyless; as well as feeling of loneliness and social isolation. Internet users are not a homogenous group. Mafe and Blass (2006) proposed that a profile of internet-dependent users is young. Young internet users (that is between 19 to 24 years old) were more at risk of becoming internet addicts than older users (Soule et al., 2003; Thatcher and Gooloman, 2005). Young and Rogers (1998) suggested

that university students are considered as high risk group for internet addiction. The possible reasons could be available free time, no monitoring because of being away from parents and sometimes toget away from tough university routine (Kandell, 1998). Suhail and Bargees (2006) also reported some benefits of internet access for college students. They indicated that internet usage impacts education in a positive way by increasing communication with classmates and professors, increasing access to libraries and educational databases, and improving study hours and study habits. Despite these benefits of internet use, researchers have maintained that college students are at particularly high risk for developing internet addiction. The important effect that needs to be investigated in this study is whether internet addiction will affect the academic performance of students. Previous studies on internet use of teenagers have been inclined to concentrate on Internet addiction (Na, 2004; Kim, 2004; Son, 2003). Various studies have reported that internet usage has a negative impact on students' academic performance. Jeong (2005) examined the difference in academic performance of elementary school students by Internet use. On the basis of the existing literature it was hypothesized that internet addiction would have negative impact on academic performance of the university students.

Several studies have reported gender differences in internet usage. Weiser (2000) reported significant gender difference in internet usage. He reported that males tend to be more familiar with the computers and internet as compared to females. Same gender differences were stated in the literature concerning internet addiction. Scherer (1997) suggested that dependent internet users included a large proportion of men as compared to women. Similar results were reported by Morahan-Martin and Schumacher (2000) that males were more likely to be pathological internet users than females. Keeping these findings in view, it was hypothesized that male students would be associated with addicted internet usage as compared to females.

In Pakistan, the Internet was first introduced in 1995. During recent years, a dramatic growth in the use of Internet has been observed in Pakistan. Few researches have been conducted in the field of cyber world and its impact on adolescent's behavior. Suhail and Bargees (2006) investigated the effects of excessive internet use in undergraduates of Pakistan. However, the current study would be a step ahead in the same line to investigate the phenomena of internet addiction in depth which would ultimately add to the existing body of knowledge.

The current work was undertaken to determine the relationship between internet addiction and academic performance of undergraduates. This research specifically focused on Internet usage (not of just computer) as studies have revealed that it is mostly the Internet that makes people addictive of computers. It was decided to study only undergraduate students for this purpose as they were found to be the heavier consumers of the

Internet compared to postgraduate students.

The present study was carried out to study following objectives. Firstly to investigate the relationship between internet addiction and academic performance of university undergraduates. Secondly, to study the impact of internet addiction on academic performance of the university students. Lastly, to study gender differences with reference to internet addiction.

To meet the objectives, following hypothesis were formulated:

1. There is a negative relationship between internet addiction and academic performance of university undergraduates.
2. Internet addiction has negative impact on academic performance of university undergraduates.
3. There is a significant gender difference on internet addiction.

## METHODS

### Sample

Convenient sampling technique was used to draw the sample. 400 students filled the self-reported questionnaires. However, only 259 questionnaires were considered for the data analysis because of the incompleteness of questionnaires. There were 156 male and 103 female students included in the sample. The age of sample ranged from 17-23 with the mean age of 19.34 and standard deviation of 1.25.

### Instruments

*The following instruments were used in the study*

**Internet addiction:** Internet addiction was measured with the 20-item Young's Internet Addiction Test (IAT) developed by Young (1998). IAT consisted of 20 questions designed to identify people as mildly, moderately, and severely addicted to internet. It is scored on 5 point rating scale from strongly agree to strongly disagree. The total score range is from 20-100. Scores  $\leq 49$  are considered normal, 50-79 is considered problematic, and 80-100 is considered as significantly problematic.

**Academic Performance:** Academic performance of the students was measured with the Grade Point of Average achieved in previous semester.

### Procedure

After getting the formal permission from the principles of concerned departments' data was collected in two sessions. Students were briefed about the nature and the purpose of the current study. Students were assured about the confidentiality of the data. Instructions were given regarding to the questionnaires. Average time taken by students in filling questionnaire was 20 minutes. After the data collection, data was statistically analyzed using SPSS 17.

## RESULTS

Data was analyzed using SPSS version 17. Following

**Table 1.** Means, Standard deviations, Cronbach’s Alpha, and Correlation Matrix among Variables.

Variables	M	SD	$\alpha$	GPA
Internet addiction	39.23	12.48	.86	-.130*
GPA	19.97	1.23	---	---

**Table 2.** Simple Linear Regression Analysis of internet addiction as predictor of academic performance. (N=259)

Model	B	SE	$\beta$	t	p
Constant	3.24	.122			
Internet addiction	-.006	.003	-.130	-2.07	.039

$R^2 = .13$ ,  $\Delta R^2 = .017$   
 $F = 4.3$ ,  $P < .05$

tables represent the results of the current study.

Table 1 presented the descriptive and correlation between internet addiction and academic performance. The findings suggested that internet addiction has significantly negative relationship with academic performance ( $r = -.13$ ,  $p < .0^*$ ). Table 1 also presented descriptive of the variables which suggested that Internet addiction scale achieved acceptable alpha reliability.

Table 2 described the simple linear regression analysis for determining the impact of internet addiction on academic performance of the students. Results showed that internet addiction had a significant impact on academic performance of the students. Internet addiction as predictor accounted for 13% variance in the academic performance of the students showing the beta value ( $\beta = -.13$ ,  $t = -2.07$ ,  $p < .05$ .)

Table 3 described the simple linear regression analysis was carried out to find out the impact of gender on internet addiction. Gender was dummy coded as 0 and 1 in order to run the regression analysis. Results reported that gender is also a significant determinant of internet addiction. Results stated that male gender is a significant predictor of internet addiction showing the beta value ( $\beta = -.18$ ,  $t = -2.9$ ,  $p < .05$ .)

Table 4 described the independent  $t$  test was carried out to compute the gender differences on the internet addiction. Results showed that male students tend to score higher on internet addiction behavior than females.

## DISCUSSION

The main objective of this study was to study the relationship between internet addiction and academic performance of university undergraduates. First of all, an alpha coefficient was calculated for Internet Addiction scale to ensure the reliability for the present sample. The scale achieved high reliability coefficients, that is .86 which suggested that the scale was suitable and reliable

**Table 3.** Simple Linear Regression Analysis of gender as predictor of internet addiction (N=259)

Model	B	SE	$\beta$	t	p
Constant	.621	.936			
gender	-6.23	2.08	-.18	-2.9	.003

$R^2 = .063$ ,  $\Delta R^2 = .056$   
 $F = 8.6$ ,  $P < .001$

for the present study.

On the basis of existing literature it was hypothesized that internet addiction would have negative impact on the academic performance of the students. The result is in accordance with the stated hypothesis. Same result has been stated by various studies that the greater use of the internet by dependent users will increase the probability of the missing classes and lower grades (Young, 1998; Scherer, 1997). Being a student, one can hardly live without exams, assignments, group projects, various extracurricular activities etc. Whether a student can have good academic achievement greatly depends on the student’s health, his/her time management for every school work, as well as how hard he/she works. There are some researches showing that the Internet can distract students from their study (Barber, 1997; Brady, 1996; Young, 1998). This could also be explained by the fact that students tend to spend so much time in online activities, which leaves them with little or no time for studies (Griffith, 2000). It can also be clarified by the fact that a student loses his capacity to concentrate, most probably because of the late night internet sessions (Frangos and Frangos, 2009). All these previous studies support current findings that academic performance is the most important predictor of Internet addiction.

One of the objectives of the present research was to study the impact of gender on the scores of internet addiction behavior. To meet the stated objective it was hypothesized that Results showed that male gender is significant predictor of the internet addiction which is consistent with the findings of Scherer (1997). However, this finding may simply be due to the fact that more males than females use the Internet across the world. Another explanation for the lower percentage of internet addiction among females, involves the fact that female college students often receive more family supervision than male especially in eastern cultures, which may prevent females from spending as much time on the Internet (Tsai et al., 2009).

However, current study has some limitations. Firstly, the sample was selected from only one institute; generalization of the findings to the total population of the university undergraduates is limited. Secondly, it only investigated the effects of internet addiction on academic performance of the students, more cognitive and social variables should be considered in future studies. Limited demographic variable and the only quantitative method

**Table 4.** Gender differences on internet addiction (N=259)

Variables	Male n=156		Female n=103		t	P	df
	M	SD	M	SD			
Net Addiction	40.23	12.32	37.07	11.47	2.07	.039	257

been used in the present study. To overcome these limitations, some recommendations are suggested, for instance use both qualitative and quantitative method for this research. Also, the similar and related topic of research is recommended to do more in the future as it is an important issue in the society. As a conclusion, problem of internet addiction although not that serious but this should be aware to prevent the growing of internet addiction.

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