www.irbas.academyirmbr.com
International Review of Basic and Applied Sciences
April 2023
Vol. 11 Issue.2

A Correlational Analysis between Internet Addiction, Emotional Quotient, and Academic Achievement in Undergraduates of Mardan

KAINAT JAVED
Abdul Wali Khan University Mardan.
Email: kainatjaved150@gmail.com
Tel: +923411236842

NAVEED ALAM KHAN
Lecturer Department of Psychology, Abdul Wali Khan University Mardan.
Email: naveedalam@awkum.edu.pk
Tel: +923005855566

MISBAH ULLAH
Abdul Wali Khan University Mardan.
Email: misbahislam566@gmail.com

MUHAMMAD HAROON UR RASHID
Institute of Business Studies and Leadership, Abdul Wali Khan University Mardan.
Email: haroon@awkum.edu.pk

Abstract

The advancement in technology and the internet have drastically hit the lives of individuals, especially the youth, in the past few decades. Thereby, making an immense impact in many spheres of our life, may it be physical, social, psychological or emotional well-being. This study explores the correlation among internet addiction, Emotional Quotient, and academic Achievement among undergraduates of Mardan, Khyber Pakhtunkhwa. The sample collected consisted 200 (100 males and 100 females) University students. Purposive convenient sampling technique was used for the collection of data. Age of the participants ranged from 18 to 30 years. The instruments; Internet Addiction Standard Test (Young, 1998) and Trait Emotional Questionnaire Short-Form (Petrides and Furnham, 2001) were used for the current study. Academic achievement was measured through last semester GPA of the students. Results showed a negative significant interrelation among internet addiction, Emotional Quotient and Academic achievement. Results also showed that there is a significant gender difference in internet addiction and no significant gender difference on Emotional Quotient and academic achievement.

Keywords: *Internet Addiction, Emotional Intelligence, Emotional Quotient, Academic Achievement, Academic Performance.*

Introduction

Internet addiction

"Internet addiction is a type of compulsive disorder that does not involve any Intoxicating agent" (Young, 1996).The Internet is a global network that connects millions of computers while enabling communication skills and information gathering. It is formed of interlinked networks applying standardized communication mechanism. There are many benefits of the Internet and likewise disadvantages; It has been growing nonstop over the years, affecting adolescents worldwide. Many studies show the harmful effect of the utilization of the internet. The word "addiction" has developed beyond, which led to many behaviors such as video game playing (Keeper, 1990), exercise (Margan, 1979), overeating (Leisure &Bloome, 1993), T.V. watching (Winn, 1983), obsessive Gaming (Griffiths, 1990), and love relationship (Peels & Brody, 1975) as cited in Sanghvi and Rai (2015).

According to Bullen and Harry (2000), the Internet is a developing phenomenon, and many individuals are becoming internet addicts daily. Nowadays, the Internet is available all over the place; in the household, at schools, other educational institutes, and the workplace, even at shopping malls and restaurants. Most young individuals and youths are primarily using it.

Emotional Quotient

“It is the propensity to observe our own and other people’s emotions, distinguish between different emotional experiences and categorize them properly, and use emotional knowledge to direct our ideas/thinking abilities and actions or behavior” (Salovey& John Mayer, 2004). Emotional quotient also referred to as emotional intelligence is defined by Mayor and Salovey (1995), as the capacity to observe feelings, examine and produce emotions to help ideas, identify emotions, ideas and knowledge, and contemplatively balance emotions to stimulate emotional and cognitive or intellectual development. According to Salovey and Mayer (1997), emotional intelligence is a proper understanding of the surroundings, self-encouragement, acknowledgement, and governing the feeling of oneself and those of others (as this procedure can ease the manner of thoughts and communications).

Academic Achievement

Simpson and Weiner (1989) stated that academic achievement is a behavior that measured systematically in a standardized test. The academic achievement tests measure experience in school subjects. These tests equalized to meet the required national norms. Simpson & Weiner (1989) also stated that the central concept of the achievement test is to find out the ideal motif of capabilities or knowledge in systematic schooling and training in faculty jobs.

Academic achievement measured by standardized achievement tests developed for school topics. Neville & Bruce (2007) state that measuring academic achievement is based on the correlation between what is achieved during the subject and what is accomplished at the end of the subject. Academic achievement is excellence in all academic disciplines, classes, and extracurricular activities. It is the result of education as it indicates the quantity to which pupils, teachers, curricula, and the educational organizations have accomplished predetermined educational desires. Exams usually measure academic performance by assessing procedural skills and declarative knowledge, which refer to the information the disciple has learned (Engel, 2002; Bennett, 2003; Bishin, 1973) This issue requires over elements that might be generally linked with instructional achievement. There is a colossal stress on college pupils to earn high grades since academic success is believed to own a prognostic fee and used to bar or open the

gate of the number one secondary schools and universities, and also the varsity and favorable societal occupations (Sharma, 2005)

Literature Review

Mesgarani, Shafiee, Ahmadi, and Zare (2013) conducted a study. The study's objective was to review the interrelation between Internet Addiction and metacognition variables, i.e., Emotional Quotient and sensation seeking. The result of the investigation showed no significant Interrelation between sensation quest, internet addiction, and Emotional Quotient. Email, Online conversation, debate forums, social media entertainment (games, songs, videos, animations), online shopping, web search are some of the vital services that internet provides to the students or the younger generation (Chou &Hasio, 1999).

The research performed by Usman, Alavi, and Shafeq (2013) aimed to find the interrelation between Internet Addiction (I.A.) and academic achievement among foreign students at University of Teknologi Malaysia (UTM). In terms of gender and country of origin, no significant differences in inter-net addiction were found. Also there were no significant Lawrence and Deepa (2013) conducted another study. The study aimed to find a significant interrelation between Emotional Quotient and the academic achievement of high school pupils. Findings revealed no significant difference in Emotional Quotient among high School pupils. The study by Akhtar (2013) aimed to study the interrelation between inter-net addiction and academic achievement among varsity undergraduates. The study evaluated gender Differences among pupils on internet addiction. The sample consisted of 359 undergraduates.

This research reviewed all the research studies conducted to inspect how internet overuse unexpectedly influences social lives, academic performance and emotional intelligence and hoe this influence varies in respect to gender. As the overuse of internet can affect lives in both acceptable and terrible ways, the impact on academic achievement and emotional reasoning needs more attention. These factors change consistently with time and make it harder for people to keep up a standard social life with the substantial dependence on the Internet. Consequently, there are numerous influences that Internet have on the lives of individuals and will keep on having as the advancement of Internet escalates with each passing day.

Based on above discussion, the following hypotheses have been developed. .

H1: There is significant relationship between Internet addiction and Emotional Quotient of young adults?
H2: There is significant relationship between internet usage and academic achievement in students?
H3: There is significant relationship between excessive internet and students' emotional well-being and academic Performance?
H4: There is significant gender differences in Internet Addiction, Emotional Quotient, and Academic Achievement.

Methodology

The purpose of the present study was to analyze a Co relational Analysis between internet addiction, Emotional Quotient, and academic achievement in university students of Mardan, Khyber Pakhtunkhwa. Women University, University of Engineering and Technology and Abdul Wali Khan University were visited for data collection. The under grade students were targeted to record the responses. Purposive sampling technique was applied. Data was obtained through questionnaire. Prior permission was granted from the authorities before approaching the respondents. A total of 250 questionnaires were distributed among students of different departments at BS level. Among the disseminated questionnaires, 218 questionnaires were returned. After checking for missing data, we obtained 200 questionnaires which

were complete in all aspects and thus, were utilized for analysis. In order to equal representation of respondents, equal number of questionnaires were obtained from male and female students.

Analysis

Table 1: Sample characteristics, Demographic Information of the subjects.

	F	%
Gender		
Male	100	50
Female	100	50

Note=frequency, %=percentage

Table 1, shows the number of respondents and exhibits that 50% of the respondents were male and 50% of the respondents were female.

Table 2: Internal Consistency Of the instruments, Descriptive statistics of IA and EI

Scale	No. of Items	M	SD	S	K	Coefficient Of alpha
IA	20	55.50	9.541	-.746	- 1.142	0.855
EI	30	84.59	35.514	18.972	3.594	0.91

IA=Internet Addiction test, I=Emotional Intelligence Questionnaire-Short form, M=Mean, SD=Standard Deviation, S= Skewness, K=Kurtosis

Table 2 shows the mean, Standard deviation, Skewness and Kurtosis of the used scales i.e. IA=Internet Addiction test, I=Emotional Intelligence Questionnaire-Short form. It also shows the internal consistency of the scales i.e. it shows strong reliability. Thus, the scales are valid and reliable and are suitable for this study.

Table 3: Correlation between IA, EI and GPA, Inter scale correlation between IA, EI and GPA.

Variables	IA	EI	GPA
IA	1		
EI	-.467**	1	
GPA	-.199**	-.458**	1

**Correlation is significant at level of 0.01(2-tailed)

Table 3 shows a significant negative correlation among internet addiction, Emotional Quotient, and academic achievement. This means that an individual with high internet addiction would low emotionally intelligent and low in academic achievement.

Table 4: Gender difference on IA, EI and GPA, T values showing difference between males and females on IA, EI and GPA.

Variables	Male		Female		t (198)	P	Cohen's d
	N= 100		N= 100				
	M	SD	M	SD			
IA	56.42	17.927	49.11	23.823	-2.452	.015	.346
EI	1.121	36.253	1.115	34.946	-.127	.899	.000
GPA	3.028	.470	3.054	.609	.339	.735	.047

Note: *IA*=Internet Addiction test, *I*=Emotional Intelligence Questionnaire-Short form, P= Probability, M= Mean, SD= Standard Deviation, P value >0.01,

Table 4 shows a significant gender difference in internet addiction but no significant gender differences in Emotional Quotient and academic achievement. Males have high scores on the internet addiction scale as compared to females.

Discussion

The current Study is a co relational analysis among internet addiction, emotional quotient, and academic achievement in undergraduates of Mardan, Khyber Pakhtunkhwa. The study also aimed to find gender differences concerning these variables. The data analysis for achieving these objectives an analysis was performed by using Statistical Package for Social Sciences version 22 (SPSS-22). The reliability analysis and descriptive statistics of the instruments in table 1 show that all instruments were found to be reliable and internally consistent.

Pearson Product Moment Correlation was used to determine the relationship among internet addiction, Emotional Quotient, and academic achievement (Table 3). A T-test(Table 4) was used to explore the gender differences in internet addiction, Emotional Quotient, and Academic achievement.

Pearson's Product Moment Correlation Co-efficient (Table 3) was computed to investigate the relationship among internet addiction, Emotional Quotient, and academic achievement. The results show a significant negative relationship between internet addiction and Emotional Quotient, supporting hypothesis 1 i.e. There is a significant relationship between internet addiction and Emotional Quotient. Thus, hypothesis 1 is accepted. Results accessed that the study is the same as the early research discussed in the literature review. Results of the study showed a negative relationship between internet addiction and emotional intelligence. Another study by Kant et al. (2018) aimed to evaluate the predictive role of internet addiction and emotional intelligence. The result indicates a negative correlation between internet addiction and emotional intelligence.

Results in Table 3 showed a significant negative relationship between internet addiction and academic achievement. The results support second hypothesis. Hypothesis 2 is accepted. Results of the previous research indicate consistency with the present research results.

In (Table 3) the result shows that there is a significant positive correlation between Emotional Quotient and academic achievement, which accept hypothesis 3 i.e. There is a significant significant relationship between Emotional Quotient and academic achievement. The previous study was the same as the current study result. The study conducted by Shah, Sanisara, Mehta, and Veghala (2013), directed to see the

relationship between emotional intelligence and academic achievement. The result showed a negative relationship between emotional intelligence and academic achievement

Table 4 Independent sample t-test shows a significant gender difference in internet addiction, but no significant gender difference was found in Emotional Quotient and academic achievement. The results reject hypothesis 4 i.e. There are significant gender differences in Internet Addiction, Emotional Quotient, and Academic Achievement. The previous research is the same as the current study results—a study conducted by Arbabisarjou et al. (2016). The result showed that there was a significant gender difference in internet addiction. Ghulami et al. (2018) conducted another research. The results showed that there were significant differences in internet addiction in terms of gender. A study was conducted by Usman et al. (2013) to analyze the relationship between internet addiction and academic success among undergraduate students. Results of the study indicate no significant differences in internet addiction in terms of gender and country of origin.

Lawrence and Deepa (2013) find out the relationship between emotional intelligence and academic achievement. The results showed that there are no significant gender differences in Emotional Quotient. A study conducted by Ali and Ali (2016) examined the relationship between Emotional Quotient, academic achievement, and gender. The result showed no significant difference between males and females in Emotional Quotient. However, the result of the current study suggests that there are no significant gender differences in academic achievement. This may be due to the reason that the sample has been taken from different universities. This may be due to the advancement of today's life that males and females are treated equally. Therefore, there are no significant gender differences in academic achievement

Conclusion

According to the findings of this study, university students are classified into mild, moderate, and severe internet users based on their interaction with the internet. Undergraduate students were found to be more likely to use the internet excessively than those in graduate school. They may also become addicted to mild and severe substances, affecting their academic performance. This study provides a few avenues for further studies which may include the post grade students of different universities. Similarly, the environment also plays important role if students achievement and enhancing their emotional intelligence. Thus, both private and public sector universities may be targeted for further studies. In the same vein, the emotional intelligence of these universities may be compared. The target population was the universities students. In khyber pakhtonkhwa, the colleges also offer different BS programs at under grade level where the environment is relatively different than universities which if further studied may provide interesting results.

References

Adetayo, J. O., &Kiadese, A. L. (2011). Emotional Intelligence and parental-involvement as predictors of academic achievement in financial-accounting. *American Journal of Social and Management Sciences*, 2(1), 21-25

Akhtar, N. (2013). Relationship between Internet Addiction and Academic Performance among University Undergraduates. *Educational Research and Reviews*, 8(19), 1793-1796

Antonio, A., &Tuffley, D. (2014). The gender digital divide in developing countries. *Future Internet*, 6(4), 673-687.

Arbabisarjou, A., Gorgich, E. A. C., Barfroshan, S., &Ghoreishinia, G. (2016). The association of internet addiction with academic achievement, emotional intelligence and strategies to prevention of them from student's perspectives. *International journal*, 3(1).

Arockiam, L., &Selvaraj, J. C. (2011). A study on relationship between emotional quotient and recollection & retention in e learning. *International Journal on Computer Science and Engineering*, 3(12), 3748

Arora, R., (2016). The International Journal of Indian psychology, 3(2). https://www.ijip.in Austin, E. J., Parker, J. D., Petrid

Baghcheghi, N., &Koohestani, H. R. (2022). The predictive role of tendency toward mobile learning and emotional intelligence in Internet addiction in healthcare professional students. *Journal of advances in medical education & professionalism*, 10(2), 113–119.

Bastani, S., &Fazel-Zarandi, M. (2008, January). The effect of internet usage on interpersonal relationships: A case study. In Proceedings of the41stAnnual Hawaii International Conference on System Sciences (HICSS2008) (pp. 61-61). IEEE.

Bayat, S., Azizi, S., Daoud, M. I., Nir, G., Imani, F., Gerardo, C. D&Mousavi, P. (2017). Investigation of physical phenomena underlying temporal-enhanced ultrasound as a new diagnostic imaging technique: theory and simulations. IEEE transactions on ultrasonic, ferroelectrics, and frequency control, 65(3), 400-410.

Canan, F., Ataoglu, A., Ozcetin, A., &Icmeli, C. (2012). The association between Internet addiction and dissociation among Turkish college students. *Comprehensive psychiatry*, 53(5), 422-426.

Cardak, M., Koc, M., &Colak, T. S. (2009). The effect of a rational emotional behavior therapy (REBT) group-counseling program on the internet addiction among university students. Available at: omeka. ibu. edu.ba/items/show/3395 (accessed 2 February 2021).

Černja, I., Vejmelka, L., &Rajter, M. (2019). Internet addiction test: Croatian preliminary study. BMC psychiatry, 19(1), 1-11. Chak, K., & Leung, L. (2004). Shyness and locus of control as predictors of internet addiction and internet use. *Cyber Psychology &Behavior*, 7(5), 559-570.

Chamundeswari, S. (2013).International Journal of Academic Research in Economics and Management Science, 2(4). http:doi:10.6007/IJAREMS/v2-i4/126

Chaudhari, B., Menon, P., Saldanha, D., Tewari, A., & Bhattacharya, L. (2015). Internet addiction and its determinants among medical students. *Industrial psychiatry journal*, 24(2), 158.

Chou, Jyh-Rong& Hsiao, Shih-Wen. (1999). A usability study on human–computer interface for middle-aged learners. *Computers in Human Behavior*. 23. 2040-2063.

Darshan, S.M., Rao, S.T., Manickam, S., Tandom, A., &Ram, D. (2014). In Indian Journal of Psychology. http://doi:10.4103/0019-5545.146536

. Ghulami, H. R., Hamid, M. R. A., Ibrahim, M. R., Hikmat, A., &Aziz, H. (2018). Relationship between Internet addictions and academic performance among Afghan universities students. International Journal of Innovative Research and Scientific Studies (IJIRSS), 1(4).www.ijirss.com

Ismail, Md& RAZALI, MOHD & Alam, Syed. (2015). Individual Needs, Cooperative Learning and Academic Achievement among University's Students. *Journal PersonaliaPelajar*. 18. 148-156.

Kant, R. (2018). Relationship Of Internet Addictionwithemotional Intelligence Among Youths. *Education Sciences & Psychology*, 48(2).

Khan, M. A., Shabbir, F., & Rajput, T. A. (2017). Effect of gender and physical activity on internet addiction in medical students. *Pakistan journal of medical sciences*, 33(1), 191.

Khoshakhlagh, H., &Faramarzi, S. (2012). The relationship of emotional intelligence and mental disorders with internet addiction in internet user's university students. *Addiction & health*, 4(3-4), 133.

Khwaileh, F. M., & Zaza, H. I. (2011). Gender differences in academic performance among undergraduates at the University of Jordan: Are they real or stereotyping. *College Student Journal*, 45(3), 633-648.

Kirschner, P. A., &Karpinski, A. C. (2010). Facebook and academic performance. Computers in human behavior, 26(6), 1237-1245. Komleh, R. M., Hosseini, A. F., Fata, L., Mirhosseini, F., &Bigdeli, S. (2016). Investigating the relationship between internet addiction and academic achievements of medical students (2013). *Iranian Journal of Health, Safetyand Environment*, 3(2), 528-534.

Mayer, J. D., Salovey, P., & Caruso, D. R. (2004). Target Articles: Emotional Intelligence: Theory, Findings, and Implications. *Psychological inquiry*, 15(3), 197-215.

Mesgarani, M., Shafiee, S., Ahmadi, E., &Zare, F. (2013). Studying the Relationship between Internet Addiction and Emotional Intelligence, Sensation Seeking and Metacognition among those Who Referred to Cafes.

Nasir, M. (2012). Emotional intelligence as a mediator in the relationship of cultural adjustment and academic achievement of international students. *Academic Research International*, 3(3), 275.

Nemati, Z., &Matlabi, H. (2017). Assessing behavioral patterns of Internet addiction and drug abuse among high school students. *Psychology research and behavior management*, 10, 39.

Nikmanesh, Z., Kazemi, Y., &Khosravy, M. (2014). Study role of different dimensions of emotional self-regulation on addiction potential. *Journal of Family and Reproductive*

Aznar-Díaz, I., Romero-Rodríguez, J. M., García-González, A., &Ramírez-Montoya, M. S. (2020). Mexican and Spanish university students' Internet addiction and academic procrastination: Correlation and potential factors. *PloS one*, 15(5), e0233655.

Omoyemiju, M. A., &Popoola, B. I. (2021). Prevalence of internet addiction among university students in Nigeria. *British Journal of Guidance& Counselling*, 49(1), 132-139.

Ponce-Rojo, Antonio & Vega, Leticia & Hernández-Contreras, Jorge &Rodriguez, Jeffry & Lopez, Yolanda. (2013). Gender differences in freshmen Internet addicts in the second largest public university in Mexico..

Radfar, Shokofeh&Aghaie, Mahdi &Motashaker-Arani, Mahdi &Noohi, Sima&Saburi, Amin. (2012). Evaluation of Emotional Intelligence and Its Relationto the Academic Achievement in Medical Students. *Thrita Journal of Medical Sciences*. 1. 113-9. 10.5812/thrita.8605.

Sheng, Z., Yang, S., Yu, Y., Vasilakos, A. V., McCann, J. A., &Leung, K. K. (2013). A survey on the ietf protocol suite for the internet of things: Standards, challenges, and opportunities. IEEE wireless communications, 20(6), 91-98.

Su, W., Han, X., Jin, C., Yan, Y., & Potenza, M. N. (2019). Are male's more likely to be addicted to the internet than females? Meta-analysis involving34global jurisdictions. *Computers in Human Behavior*, 99, 86-100.

Subrahmanyam, K., Greenfield, P., Kraut, R., & Gross, E. (2001). The impact of computer use on children and adolescents' development. *Journal of Applied Developmental Psychology*, 22(1), 7-30.

Sum, S., Mathews, M. R., Pourghasem, M., & Hughes, I. (2008). Internet technology and social capital: How the Internet affects seniors' social capital 57and wellbeing. *Journal of Computer-Mediated Communication*, 14(1), 202-220.

Singh Baljinder Singh Maghar and Singh Kuldip (n.d.). The influence of emotional intelligence and learning style on student's academic achievement. Welcome to UiTM Institutional Repository – UiTM Institutional Repository. https://ir.uitm.edu.my/id/eprint/13058/

Thomas, N. J., & Martin, F. H. (2010). Video-arcade game, computer game and Internet activities of Australian students: Participation habits and prevalence of addiction. *Australian Journal of Psychology*, 62(2), 59-66.

Tsitsika, A., Janikian, M., Schoenmakers, T. M., Tzavela, E. C., Olafsson, K., Wójcik, S, & Richardson, C. (2014). Internet addictive behavior in adolescence: a cross-sectional study in seven European countries. *Cyber psychology, behavior, and social networking*, 17(8), 528-535.

Turel, Y., &Toraman, M. (2015). The relationship between Internet addiction and academic successes of secondary school students. Anthropologist, 20. 58Usman, N. H., Alavi, M., &Shafeq, S. M. (2014). Relationship between internet addiction and academic performance among foreign undergraduate students. *Procedia-Social and Behavioral Sciences*, 114, 845-851.

Young, K. (2016). Internet addiction test (IAT). Stoelting. Young, K. S. (1996). Psychology of computer use: XL. Addictive use of the Internet: a case that breaks the stereotype. *Psychological reports*, 79(3), 899-902.

Yu, L., &Shek, D. T. L. (2013). Internet addiction in Hong Kong adolescents: a three-year longitudinal study. *Journal of pediatric and adolescent gynecology*.