

Social Connectedness, Life Contentment, and Learning Achievement of Undergraduate University Students—Does the Use of Internet Matter?

Sarwat Sultan^{*}, Irshad Hussain^{**} and Shabbih Fatima^{***}

Abstract

This study was conducted to (a) examine the correlation, coefficient matrix of internet usage with social connectedness, life contentment and learning achievement of undergraduate university students, (b) evaluate the impact of internet usage on social connectedness, life contentment and learning achievement of undergraduate university students, and (c) determine the gender differences in internet usage, social connectedness, life contentment and learning achievement of undergraduate university students. It was a descriptive study and adopted a survey approach. Its population consisted of undergraduate university students of the Departments of Social Sciences of the Bahauddin Zakariya University Multan, Pakistan. A sample of 300 students evenly divided into gender (150 male students & 150 female students) was taken conveniently from the population. The data were collected by using Internet Usage Scale (Wanajak, 2011), Social Connectedness Scale (Lee and Robbins, 1995), Contentment with Life Assessment Scale (Lavalley, Hatch, Michalos and Mckinley, (2007); whereas, learning achievement was measured through CGPA obtained by students. Results indicated significant correlations of internet usage with social connectedness, life contentment and learning achievement. Findings also demonstrated that internet usage has a significant impact on social connectedness, life contentment and learning achievement of undergraduate university students. The significant difference appeared regarding gender of the respondents in the level of internet usage and social connectedness, whereas no gender differences were found regarding life contentment and learning achievement of the undergraduate university students.

Keywords: Internet usage, social connectedness, life contentment, learning achievement, information and communication technologies

^{*}Department of Applied Psychology, Bahauddin Zakariya University, Multan.
Email: sarwatsultan@hotmail.com

^{**}Department of Education, The Islamia University of Bahawalpur
Email: irshad.hussain@iub.edu.pk; irshad_iub@yahoo.com

^{***}Department of Applied Psychology, Bahauddin Zakariya University, Multan.

Introduction

The 21st Century and the Internet

The 21st century appeared with knowledge revolution and brought about unprecedented innovations and inventions (Haag, Maeve, & James, 1998). Innovations and inventions are generally termed as technologies having considerable effects on human life. The technologies which facilitate communication, interaction and disseminate information are referred to as Information and Communication Technologies –ICTs (Hussain, 2005). Predominantly, internet appeared as an important innovation and a popular mode of communication & interaction (Hussain & Durrani, 2012) generally among the masses and particularly among the students. Its popularity seems to be associated with its affordability, usability, availability and cost effectiveness (Lee & Coughlin, 2015; Humphry, 2014; Hussain, 2005). Therefore, at present, seemingly it has become a prevalent medium of communication and interaction among all individuals and organizations including schools, colleges and universities.

Different organizations and individuals use internet according to their needs and objectives. For example, teachers and students use internet for accessing to and sharing latest information and knowledge; business personnel use it to have latest information about market and stock exchange; aviation staff use it to control flight operations and so on. Due to its easy accessibility, any individual of any age can use it from anywhere in the world. However, as a technology, it appears to be neutral but its use has both the positive as well as the negative aspects (Ono & Zavodny, 2007). But negative aspect does not mean that one shouldn't use or stop using it; rather it depends upon intentions and motives of the users and how s/he uses the internet (Norris, 2001). Purposeful use of the internet not only facilitates the students and teachers but all individuals of the society also in achieving their respective objectives (Raut & Patil, 2016).

Seemingly, all segments of the society have embraced internet and its tools [applications] even in rural and slum areas of developing countries including Pakistan (Hussain & Adib, 2010). Its use has facilitated almost in all aspects of human life. Amongst others, one of the most important functions of internet is dissemination of the right information at the right time to the right people or individuals (Haag et al., 1998). Right information keeps teachers and students; particularly, the university academia and students abreast of the latest innovations and developments in their respective disciplines and areas of interest. Therefore, they can exchange their ideas, views on academic issues, innovative instructional & research practices, and instructional materials among their community members. Moreover, use of internet enhances research pursuance among the university students by promoting their access to latest books and renowned databases to retrieve research articles (Hussain & Durrani, 2012). They can share their knowledge and learning experiences in their networks (Jin, 2009). All this seems to help academia and students to learn something new and novel conveniently.

Observably, the use of internet has increased considerably among students at all levels of education i.e. school, college and university education. Presently, it appears to be an integral part of academic life of academia and students. Its use in education and training is mainly associated with teaching & learning and research purposes (Chou, Condron, & Belland, 2005) and it facilitates them in attaining such goals. In this way, it is a useful technology for educational community. But its excessive use affects academic performance of students (Chih – Hung, 2006; Hilts, 2008) which can be addressed through proper training and promoting awareness on the ethics of using internet among academia and students particularly and the public generally (Regoniel, 2012).

Social Connectedness, Life Contentment and Learning Achievement of Students

Human life is associated with belongingness and interactions. Belongingness appears as one of the main characteristics of living together. Generally, it is associated with relationships and relations; and one's sense of it is referred to as social connectedness. Lee and Robbins, (1995) viewed connectedness as "*one's opinion of self in relation to other people*" (p.239). Social connectedness is a phenomenon which describes the way individuals come closer and interact with each other. It is seen through relationships of people with others including their friends, family members and colleges (Quigley & Thornley, 2011) and so on. Similarly, Sung and Mayer (2012) called social connectedness as social presence in Online [Learning] Environments (OLEs) having five attributes – social respect, social sharing, open mindedness, social identity, and intimacy. These attributes or factors leave their impact on learning of students (Hussain, 2016).

Based on Maslows' (1943, 1970) hierarchy of needs, the researchers (Baumeister & Leary, 1995; Lee & Robbins, 2000) affirmed social connectedness as a basic need and according to them individuals make efforts in developing and maintaining relationships even under such circumstances which limit their interactions and communication like distance, absence at a certain place and alike. It plays a positive role in social development and mental wellbeing (Walton & Cohen, 2007) of individuals. Different theorists (Piaget, 1952; Perry, 1970; Vygotsky, 1978; Gilligan, 1982) were of the view that it plays a significant role in developing higher-order thinking skills among students. It creates and sustains motivation and provides psychological support to them which is necessary for developing confidence and enhancing learning process (Lee & Robbins, 2000; Tinto, 2006, 2007; Martin & Dowson, 2009). The study conducted by Pym, Goodman and Patsika (2011) revealed that social connectedness of students leaves an impact on their transition to higher education. The study also demonstrated significant relationship of social connectedness with academic performance of university students. Similarly, some other studies (Bennett, 1997; Pianta, Nimetz, & Bennett, 1997; Culp, Hubbs-Tait, Culp, & Starost, 2000) conducted on interpersonal relationships [social connectedness] of students found positive effects of such connectedness on their academic achievement due to their [students'] free [synchronous as well as asynchronous] interactions (Alassiri, Muda, & Ghazali, 2014) among their [virtual] community members.

Likewise, contentment is a phenomenon which can be observed by one's emotional and/ or mental state of satisfaction. Generally, it comes when one feels easy in his/her situation. In other words, it is a state of happiness in one's accepted situation(s) (Eisenblatt, 2002) or circumstances.

The use of internet enhances [virtual] social presence of students. It has significant effects on their satisfaction or contentment with life and friendships (Valenzuela, Park, & Kee, 2009). It enhances connectivity of the users [the students] even distributed geographically (Hussain, 2005) in the world. By using internet and its related tools (or apps) students living anywhere in the world can interact with their fellow learners and the teachers round the clock without any restrictions (Haythornthwaite & Kendall, 2010). It helps them in promoting their digital or virtual interpersonal relationships, connectivity and interactions (Buffardi & Campbell, 2008; Putnam, 2000). Observably, it is cultivating a culture of virtual connectivity or social connectedness to befitting of real life relationships (Ellison, Steinfield, & Lampe, 2007) and interactions. It enhances opportunities of synchronous as well as asynchronous interactions of students which build their confidence and facilitate their learning process and [academic] performance (Hussain & Durrani, 2012; Hussain, 2005).

Similarly, learning achievement refers to academic performance of students in terms of grades. Internet plays multidimensional role in enhancing academic performance of university students. Hussain (2005) asserted that it [the internet technology] enhances academic performance of university students and provides them a platform in getting world exposure. It opens up new avenues of learning by sharing innovative research methodologies, instructional practices, findings of the researches conducted on different aspects, knowledge and experiences (Hussain & Durrani, 2012). In this way it is used as a learning tool (Rollins, Nickell, & Wei, 2014) or technology by the students. The use of online learning tools including communication apps like emails, video and /or audio recordings help faculty and students to enhance their social connectedness and learning (Soper & Ukot, 2016) performance of the latter.

The feedback on students' work by their teachers or instructors creates an environment conducive to learning and it also develops feelings of social connectedness (Shea, 2006) among students. The degree of connectedness is enhanced by timely feedback and motivational comments of instructor(s) on work/ assignments of the students and their acknowledgement (D'Alba, 2014) works as an effective strategy (Dennen, Darabi, & Smith, 2007) to enhance their learning performance. Therefore, instructional use of internet demands keenness and attention of the academia/ or instructors to provide timely feedback to students and encouraging comments on their work as these create and sustain motivation to learn and pave for furthering their learning process.

However, generally, it is observed that increased use of internet distracts attention of [such internet addicted] students and they spend more time in using internet than on their studies. It not only affects their health but decreases or lowers their academic performance and/ or grades also. Usually, it results in their lower grades or failure in the examinations (Cakir & Ebru, 2014) in a study it was reported that the students who were using internet extensively showed their lower average scores. Such students generally, spent more time in using internet and they devoted less time for their studies which resulted in their failure in the examinations. Whereas, those who sustained obtained lesser scores/ or passed with marginal marks (Arbabisarjou, Gorgich, Barfroshan, & Ghoreishinia, 2016) achieving lower grades percentage.

Focus of the Study

The use of internet has brought about a revolution in education by facilitating teaching learning process, creating and sustaining motivation among students and enhancing their academic achievement. It also has promoted opportunities of communication and interactions supporting connectivity of the people. Now seemingly, the university students are using internet extensively. Hence, this study focused on to investigate ‘does the use of internet matter in social connectedness, life contentment, and learning achievement of university undergraduate students’?

Objectives of the Study

The objectives of the study were to (a) examine the correlation coefficient matrix of internet usage with social connectedness, life contentment and learning achievement of undergraduate university students, (b) evaluate the impact of internet usage on social connectedness, life contentment and learning achievement of undergraduate university students, and (c) determine the gender differences in internet usage, social connectedness, life contentment and learning achievement of undergraduate university students.

Research Questions of the Study

The research questions of the study were:

1. Does the correlation coefficient matrix of internet usage with social connectedness, life contentment and learning achievement of undergraduate university students exist?
2. What is impact of internet usage on social connectedness, life contentment and learning achievement of undergraduate university students?
3. What are the differences in internet usage, social connectedness, life contentment and learning achievement of undergraduate university students based on their gender?

Research Methodology

As this study focused to ascertain the use of internet by undergraduate university students regarding their social connectedness, life contentment and learning achievement; hence, it corresponds to descriptive research and survey approach was used for data collection.

Population and Sampling of the Study

The population of this study consisted of undergraduate (Bachelor Studies) students studying in their final semesters in the departments of Social Sciences of the Bahauddin Zakariya University Multan, Pakistan. The researchers used purposive cum convenient sampling technique(s) on the bases; firstly, the students who were using internet for more than three years about 3-4 hours daily were taken as respondents and that's why purposive sampling techniques was used; and secondly, it was a non-sponsored self-managed and self-financed/ self-sponsored study with time and cost as main constraints of the researchers; hence, convenient sampling technique was used which is a form of non-probability sampling and it is used in exploratory studies and cuts the expenses. The convenient sampling method is economical in terms of cost, efficient, and simple to implement or use. The respondents participated in the study on volunteer basis.

The principal researcher contacted the 346 undergraduate students through their class teachers in their respective departments. They were briefed about the study. A total of 300 students using internet for more than three years and 3-4 hours daily agreed to participate in the study on volunteer basis; and they were selected as sample of the study. All the participants were more or less similar in their socio economic class.

Research Tools of the Study

To measure the social connectedness, a social connectedness scale developed by Lee and Robbins (1995) was used. It comprised of eight items responding from 1 (strongly agree) to 6 (strongly disagree). Higher scores indicate greater connectedness. The high reliability was reported i.e. $r = 0.91$ (Lee & Robbins, 1995). However, Life contentment was measured using five item Contentment with Life Assessment Scale developed by Lavalley, Hatch, Michalos, & Mckinley (2007). It is a 7-point likert scale indicating 1 = strongly disagree to 7 = strongly agree. Items 3 and 4 are reverse scored and then total score is obtained by adding all responses on each item. Students' learning achievement was measured though their CGPA/percentage obtained in last result. The Impact of Internet Use Scale (Wanajak, 2011) was used to assess the presence and severity level of internet dependency. It is a 20-item scale, rated on five point Likert format, ranging from Never = 1 to Always = 5. Therefore, individuals who had a total score of 69 or below were classified as normal Internet users, and those above a score of 70 were classified as addictive Internet users.

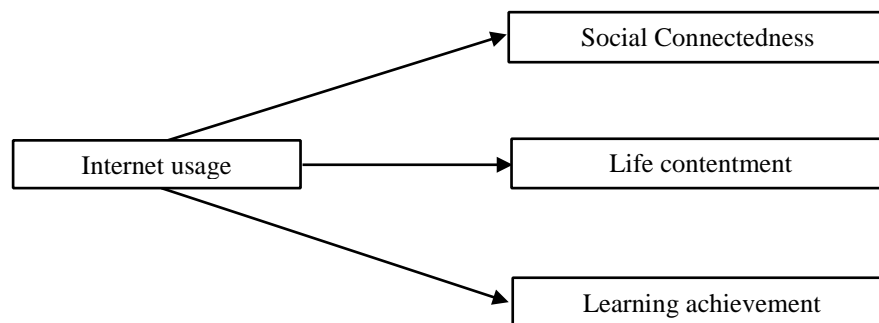
Procedure of the Data Collection

The researchers used survey method for data collection from the respondents. The respondents were briefed about the study i.e. its nature and objectives. They were also explained on how to fill in the scales. They were assured of the confidentiality of the information provided by them. Such guidelines were also provided in printed form to the respondents for their understanding. Mutual time for the data collection was decided by the researchers and the respondents. The researchers personally administered the tools and collected data from the respondents in their respective departments.

Statistical Analysis

The data was analyzed using Pearson correlations and multivariate analysis using Statistical Package for Social Science Program (SPSS) 21.

Hypothetical Model



Results of the Study

Table 1
Correlation, Coefficient Matrix of Internet Usage with Social Connectedness, Life Contentment and Learning Achievement of Undergraduate University Students

Variables	<i>N</i>	<i>M</i>	<i>SD</i>	Internet usage
Social Connectedness	300	31.09	10.343	.493**
Life Contentment	300	25.63	6.413	.163**
Learning Achievement	300	3.1976	.48206	.156**

** $p < 0.01$

Table 1 shows the positive significant correlations of internet usage with social connectedness ($r = .493^{**}$) life contentment ($r = .163^{**}$) and learning achievement ($r = .156^{**}$) of undergraduate university students. Findings indicate that students using internet experience more social connections with their family, friends, and peer groups, and they report more satisfaction with their lives. Results also demonstrate that students' usage of internet is positively connected with their learning achievements.

Table 2
Multivariate analysis

Tests of Between-Subjects Effects						
Source	Dependent Variable	Type III Sum of Squares	<i>df</i>	Mean Square	<i>f</i>	Sig.
Corrected Model	social connectedness	11797.103 ^a	35	337.060	4.817	.000
	contentment with life	2138.060 ^b	35	61.087	1.581	.025
	CGPA	12.783 ^c	35	.365	1.701	.011
Intercept	social connectedness	70046.408	1	70046.408	1001.124	.000
	contentment with life	45482.986	1	45482.986	1177.006	.000
	CGPA	791.058	1	791.058	3683.220	.000
Internet Use	social connectedness	11797.103	35	337.060	4.817	.000
	contentment with life	2138.060	35	61.087	1.581	.025
	CGPA	12.783	35	.365	1.701	.011
Error	social connectedness	18471.483	264	69.968		
	contentment with life	10201.737	264	38.643		
	CGPA	56.700	264	.215		
Total	social connectedness	316588.000	300			
	contentment with life	206447.000	300			
	CGPA	3136.877	300			
Corrected Total	social connectedness	30268.587	299			
	contentment with life	12339.797	299			
	CGPA	69.483	299			

a. R Squared = .390 (Adjusted R Squared = .309)

b. R Squared = .173 (Adjusted R Squared = .064)

c. R Squared = .184 (Adjusted R Squared = .076)

Table 2 depicts a significant impact of internet usage on social connectedness, life contentment and learning achievement, Wilks' $\Lambda = .436$, $F(105, 785.482) = 2.386$, $p = .000$. a separate Multivariate in General Linear Model was conducted for each dependent variable, and each evaluated at an alpha level of .05. There was a significant impact of internet usage on social connectedness, $F(35, 264) = 4.817$, $p = .000$; there was a significant impact of internet usage on life contentment, $F(35, 264) = 1.581$, $p = .027$; and also there was a significant impact of internet usage on CGPA, $F(33, 264) = 1.701$, $p = .011$. These findings imply that the greater employment of the internet by the students have high positive impact on their social skills and social relations. The more usage of internet engenders the feelings of more satisfaction with life in students. It also suggests if students are employing more and more internet for their learning objectives, they get more benefits in their learning and achieve high grades in courses.

Table 3
Gender Differences in Internet Usage, Social Connectedness, Life Contentment and Learning achievement

Variable	Gender	N	M	SD	t	P
Internet usage	Male	150	69.56	15.20	2.322	0.021
	Female	150	65.30	16.50		
Social Connectedness	Male	150	32.70	10.38	3.156	.002
	Female	150	29.09	9.43		
Life Contentment	Male	150	25.71	6.64	.745	.457
	Female	150	25.16	6.21		
Learning Achievement	Male	150	3.23	.455	1.317	.189
	Female	150	3.16	.506		

*p <0.05, **p < 0.01

Table 3 depicts significant gender differences in the level of internet usage ($t=2.322$, $p=.021$) and social connectedness ($t=3.156$, $p=.002$). However, no significant gender differences were found in the level of life contentment ($t=.745$, $p=.457$) and learning achievement ($t=.1317$, $p=.189$) of undergraduate university students. Statistical analyses of means and t-values indicate that male students ($M=69.56$, $SD=15.20$) use more internet than female students ($M=65.30$, $SD=16.50$). Results pertaining to gender differences in social connectedness, life contentment, and learning achievement demonstrate high social connectedness for male students ($M=32.70$) as compared to female students, but no differences were found between male and female students in respect of remaining variables of study ($M=25.71$, $M=3.23$ respectively). Findings suggest that higher the usage of internet found in male students indicate the greater social connectedness.

Discussion

The Present study was conducted to investigate the effects of internet usage patterns on social connectedness, life contentment and learning achievement among undergraduate students. The results of data analysis indicated that internet usage has the significant positive relationship with social connectedness, life contentment and learning achievement of the students. It shows that the students who spend more time on using the internet for the purpose of their class assignments and learning have been found more connected with people that could result in the development of social skills. Findings from the table 1 also depicted the positive association between internet use and life contentment of the students. Findings are more suggestive of the view that internet use enhances the feelings of happiness with life in students as well. Moreover, the greater use of internet technology is also related with the positive outcomes of learning for students. It suggested that an increase in students' internet usage increases the learning achievements.

To find out whether the internet usage impacted the social connectivity, life happiness, and learning outcomes, the multivariate analysis was performed. Results confirmed the significant positive effects of internet usage on thrice of study variables. Findings exhibited that internet usage is a good predictor for the social connectedness, life contentment and learning achievement. It drew that students' usage positively affected the social skills in students and they could establish the positive relations with their family and friends. They become happier with their living and feel contentment with overall functioning of lives. Use of internet also becomes a protective factor for their learning achievement in a way they utilize net sites for learning purpose.

The findings of the study are consistent the previous researches conducted by (Allen, Robbins, Casillas, & Oh, 2008; Astin, 1993; Heiberger & Harper, 2008), that students who use internet for study or general-purpose feel connected to their fellows and their overall satisfaction towards college life is also increased. Thus, there are so many advantages related with internet usage such easy access to information whether its related to studies or worldwide access to news and social connectedness through interpersonal communication via social networking sites. Internet usage may help to facilitate social relationships and also promote community building and maintenance (Robinson, Kestnbaum, Neustadt, & Alvarez, 2008; Nie, Hillygus, & Erbring, 2002).

The result of the study confirms the findings of the numerous past researches that there are significant gender differences in the level of internet usage (Dufour, Brunelle, Tremblay, & Leclerc, 2016), whereas social connectedness has different construct for male and female (Lee & Robbins, 2000). Also no gender differences existed in the level of learning achievements (Goni, 2015) and life contentment (Gilman & Huebner, 2006). Results pertaining to gender differences are in consistent with the findings of the previous studies. Present findings confirmed that male students are more users of internet and have more social relations as compared to female students. Dufour et al. in 2016 investigated the gender difference in internet usage among high school students and found male students high at using internet than female students. Similarly Lee and Robbins in 2000 found through their study that male students always have more social relations as compared to female students.

However, advancement in technology specifically in internet has over powered every part of student life throughout the world. From academics point of view, internet is very beneficial as it enhances the skills and capabilities of students which help them in studies as well as professional life. In academic life, the internet has refined and sharpened the skills of students and their capabilities which lead to the successful learning in academic life (Mishra, Draus, Goreva, Leone, & Caputo, 2014). The results also relate with the Braxton (2000) and Pascarella and Terenzini (2005) that in students' higher level

of life contentment leads to greater levels of learning achievement. The use of internet for collaborative learning is significantly and positively associated students' learning achievement (Tomos, Miller, Jones, Djebarni, Olubode, Obaju-Falade, & Asmath, 2013; Othman, & Musa, 2014). As reported by Asdaque, Khan, and Rizvi (2010) students using internet for download books, journal and assignment have higher grades as compare to those use internet for entertainment purpose.

Conclusions

Although internet has been become so much popular among people in general and students in particular, but previous literature available on its impact on people' life has mostly focused on the negative aspects of internet usage. Therefore the present study has concentrated on the positive impacts of internet on undergraduate students in the terms of social connectedness, life contentment and learning achievement. The findings revealed the internet usage as a good predictor for the social connectedness, life contentment and learning achievement. Findings implied that when students remain engaged in using internet it does not always result in negative outcomes for adolescents but contributes several positive benefits for them. Use of internet should not be interpreted as negative or wastage of time but must be considered as a source of learning and life contentment that usually is fostered by social skills and people connectivity.

Recommendations

Although this study has given significant findings but there are few limitations which should be considered while evaluating the study. For example the first limitation is concerned about the normality of the sample. It must be increased by increasing the sample size and appropriate sampling technique. Sample should be selected through probability sampling for the generalization of the results. Future researches should also include other variables related to school and social factors that may influence the outcome variables which were not assessed in this study.

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