



Impact of Social Networking Websites on Student's Behavior in Classroom at Postgraduate Level

¹Shahid Mehmood, ²Ghulam Qambar, ³Nosheen Kanwal

Abstract

The study aimed at analyzing the "Impact of social networking websites on student's behavior in classroom at postgraduate level" The study at hand is descriptive in nature and survey method was applied. Convenient sampling technique was used for sample selection. Sample of the study comprised of 500 postgraduate students including 250 arts and 250 sciences from conveniently selected public postgraduate colleges across the three districts (Lahore, Jhang and Sahiwal) from Punjab. The Data were collected through two instruments named Social Networking Sites Scale (SNSS) and Behavior Measurement Scale (BMS). The Data were analyzed through Statistical Package for Social Sciences (SPSS- 22) and MS- Excel 2010. Data analysis process was carried out through descriptive and inferential statistics. Appropriate statistical tests including Pearson r and regression analysis against each research question were applied. The results of the study revealed that use of social networking websites influence student's behavior in classroom. A positive and strong relationship existed between social networking sites and behavior of students. Results of present study revealed that excessive use of social networking sites also affect the study of college students as they surfing more time. It is recommended in the study that students should not be allowed to use SNSs during their stay at college so that they keep their behavior positive and concentrate on study.

Key words: Social Networking Sites, Students' Behavior

Introduction

The term Social Networking Sites (SNSs) can be defined as the connections that exist between the networks of people (Ellison, N. B. (2007). In the last ten years, the internet has changed very much. Thanks to innovation of social networking sites, young men and women now exchange ideas, feelings, personal information, images and videos at a truly surprising rate. Schill (2011) stated that SNSs motivate negative actions for college students such as delay (catching up with friends) and they are more likely to drink and drug. However, every day a lot of students are investing lots of energy engaged in using SNSs, such as Facebook or Myspace, Twitter, Whatsapp, MySpace, World of Warcraft, or Sim City. At first glance this may seem like a waste of time; however it also help students to develop important knowledge and community skills, and be active citizens who create and share content. At present, whether use of SNSs is favorable or unfavorable, many students utilize these websites on every day basis. As with passage of time these SNSs keep growing in popularity and it is our belief that technology is part of today's college student success equation. New technological innovations help accomplish and provide versatility in interacting and discussing of resources. This new approach to taking and creating details is eye-catching for young students as a system and space for activities not possible in the face-to-face perspective (Leea, Chena, Lia & Lin, 2015). However, running of SNSs by college students has led to talk about over whether or not it has changed the complete shape and framework of students' social interactions, educational methods, and has thus triggered major teachers to change their understanding of social interactions and study characteristics (Junco, Merson & Salter, 2010). Students use SNSs for many reasons such as access to details, group conversation, source discussing and enjoyment (Wang, Chen & Liang, 2011). This has produced rumors on their use and related good and bad effects, in both long and short terms.

*PhD Scholar, University of Okara

**PhD Scholar, University of Okara,

***Lecturer, University of Loralai, Balochista

As several studies illustrated, social networking interactions could have good and bad effects on learners. Many studies have investigated the effect of Social Networking Sites (SNSs) on students' social behavior. Hence, this research should contribute valuable findings. Its purpose is to explore the effect of SNSs on students' social interactions. This quantitative research focuses on common factors affecting students' choices and views of SNSs on social interactions. Main contribution of research lies in identifying differences and similarities on Arts and Science students' usage, choices and views of social networking on people, which can help in discerning good and bad factors.

In a survey performed by Bagget and Williams (2012) learners agree that SNSs indicate to connect between individuals and is used as indicates to share common interests. Social media represents useful tools for communication and education, and provides an opportunity for networking in any profession. Eventually limits and demanding class schedules, SNSs helps learners to multitask because they do not want to invest a while creating multiple individual messages. They commonly use Facebook or Myspace, watch television or a video, talk, email friends and family, and write papers or conduct research all simultaneously. A research by Sponsil and Gitimu (2013) investigated the effect of social networking on self-concept reports that college students either believe that social SNSs affect their self-esteem favorably or neither favorably. In growth to maturity, one tries to define his/her identification. A research done by Pempik, Yermolayeva & Calvert (2009) indicated that photos and their rapid dissemination to kids on the internet profiles reflect the important role played by technology in the growth of youth identification. Gathering feedback from peers and strengthening the bonds of friendship are also part of developmental challenges of emerging maturity. Another research done by Benage (2011) indicated that overall college students do not see Social Networking Sites (SNSs) as limiting their details or identification information shared on the internet, but rather view SNSs as a tool for expressing their details, although some parts of identification are held back in on the internet interactions. Meaning that it is not readily clear to the creators of SNSs, details of learners are being split to fit into limited space of social media. In a research explored how learners use SNSs Wang, Chen & Liang (2011) reported that most of college students invest vast number of hours accessing social networking sites. 90 % of learners surveyed invested their time on entertainment. While 80 percent of the sample admitted that they posted or responded while completing preparation, not too many students preferred using SNSs to do their preparation. Considering the overall results of collected data research, there was an unpleasant attitude towards social networking when students used them. Case study also indicated that an approach is needed to create a better balance and connection between social networking and academic research. Frequent use of Facebook or Myspace could cause habit toward site and influence students' daily life at large. A research by Zainudin, Omar, Bolong & Osman (2011) was performed to identify the connection between female students' motives for Facebook or Myspace use and Facebook or Myspace habit.

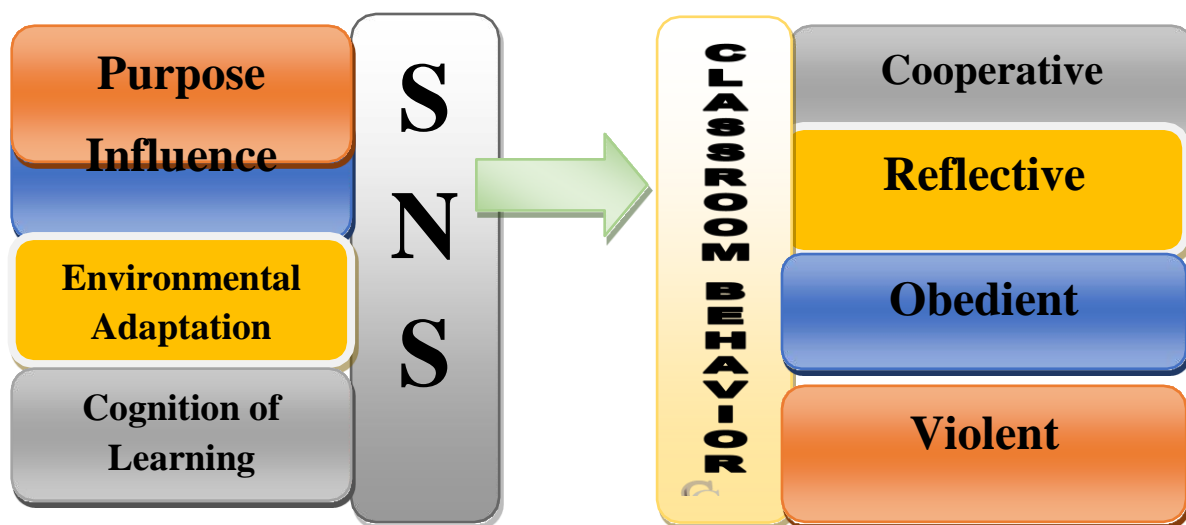


Figure 1. Framework

Social Networking Sites (SNSs)

Social networking sites are described as a web-based services that allow user to create your own user profile, identify other customers also using social networking with whom they have a connection, read and respond to content made by other customers on the site, and delivering and getting information either independently or freely (Boyd and Ellison , 2007). Individuals may prefer to deliver individual information, create on other user's user profile, organize social actions, and keep informed other customers about day to day actions (Tufekci, 2008).

Purpose of using Social Networking Websites

The use of Social Networking Sites (SNSs), like Facebook & Twitter has been very common and vital part of communication from last few years in all over the world. Youth and especially students of colleges and universities are particularly excited users of these sites. Majority of these young people engaged with SNSs on daily basis through a computer or mobile phone. This has been an area of interest for the researchers and many studies have identified the negative impacts of SNSs. However, there is large number of proofs of the benefits of the use of social networking sites, which are mostly ignored in social discussions. Some common uses of social networking sites focused in pervious researches are discussed in this study.

Influence of Social Networking Sites

Social Networking Sites (SNSs) are connections that exist between networks of people (Wally & Riviera, 2004). In recent few years, internet world has turned into a global world. All this is due to the latest technology of computer and internet. Normally we only count the advantages of social networking. No doubt there are many advantages. But on the other hand these sites are influencing on the behavior of young students very badly.

Environmental Adaptation

One of the great uses which made social media very popular among the people is that it helps people to adjust in new conditions and environment. It was difficult to know about other countries before the innovation of social media, but now it looks that whole world is in our hand. Through YouTube we can watch the videos of any culture in the world; we can identify any place on Google. The distances among the people have been removed by social media. Most popular activity on social media is to interact with people, sharing pictures and videos and updating the status. It has been described in many studies that the people of fewer than 25 years giving more time to SNSs as compare to adults. They update their profiles regularly and share new information. Social networking sites have developed the social capital.

Cognition of Learning

These days online learning frameworks are now included into the majority of academic institutions. The use of Social Networking Sites (SNSs) is increasing day by day among young generation. Another study by Notley (2009) describes that use of SNSs by students is not equal in every state or country because students waste most of their time on chatting, sharing of pictures and videos. So, they don't pay attention towards their study. Some states banning on social services and students do not have easy access to SNSs. There is a lack of evidence that SNSs effect on the student's formal education (Anderson, 2007). Software's which provides help in education are included in higher education frameworks to facilitate the students, Fitzgerald & Steele (2008).

Behavior

Behavior can be defined as a way in which a person behaves or acts. Behavior is manner in which an individual conduct herself or himself. Behavior can be observed through an event, an object or individual. Behavior is set of norms of any society and it can be seen as how one person reacts or treats to others in that society. Not only for individuals but behavior also observed as a reaction towards objects and phenomena (Butterfield, Treviño & Weaver, 2000). There for behavior is a way an individual respond towards people, society or objects. According to norms set by the society, behavior can be normal or abnormal. It is the responsibility of society to correct the bad behavior and convert the abnormal into normal behavior, (Reynolds, 2008).

Cooperative Behavior

In many studies researchers have recently focused their research towards the role of Social Networking Sites (SNSs) in structuring human attentions, Nowak, (2006). Without proper structure, communicating to a large population normally decrease possibility of coordination. But a well-defined social media encourages bringing together with significantly repeated interactions Ohtsuki, Hauert, Lieberman & Nowak (2006). In a study Lieberman, Hauert & Nowak, (2005) described that structure of social networking sites influence the cooperative behavior of students.

Violent Behavior

Violence in youth mostly develops through numerous risks and similar factors and it is a biologic susceptibility (Snyder, 2000). Violence includes incompatible, very uncooperative, cruel discipline community easy access to weapons and revelation to brutality (Cantor, 2002). Violent behavior hardly ever appears unexpectedly, it normally has a long progressive trail In certain instance, aggression would be a reaction to stress which happens during a helpless time period, and it is not similar in all individuals to not respond in explosive technique at different times in their life, (Lynch, Linder & Walsh, 2004).

Obedient Behavior

Obedience can be defined as a pattern of conduct dictated by a set of rules and regulations enforced by a higher authority (Barra, 2005). The modern concept of obedience included constructive direction toward responsible behavior that children and adolescents should be made to learn, to solve problems by themselves, to take decisions in the light of their own interest, to take responsibilities and restrictions, and to chart and carry out different projects in their practical life (Bhardwaj, 2005 cited in Kalhotra, S. K., & Sharma, V., 2013). In a study about obedient behavior Levine, (2003) described obedience as a basic element in the structure of social life of the individuals.

Reflective Behavior

The term „reflective practice“ has several definitions that varies from the idea of expert involvement in introverted more self-examination to that particular interesting activity in crucial conversation with others. Experts may clinch it hardly ever in official, clear methods or use it more beautifully in continuous methods. Moreover, indicative exercise simply

represents a thinking move toward to exercise. Others see it as self-gratifying belly button look. In a study about indicative actions nearing includes combining personal principles and principles into an expert identification (Larrivee, 2000).

Significance of Study

Present study will help to understand classroom behavior of students at colleges as it will show the level of the students' use of social networking sites. This research will help them to understand how the student's attention is redirected on using sites. This research also will be of huge benefits of the field of collection and academic literary works as it will be on addition to current literary works, and will also add to available academic literatures on social media. The results of this research could be used by academic experts and therapists to recommend students of colleges and universities at postgraduate level.

Objectives of the Study

Followings are the objectives of study

- i. To explore the impact of social networking websites on student's behavior.
- ii. To explore various social networking websites student had access to.
- iii. To explore the impact of these websites on the behavior of arts students.
- iv. To investigate the impact of social networking websites on the behavior of science students.

Research Questions of the Study

Followings are the research questions of the study.

- i. In which social networking sites students are more likely to be engaged?
- ii. Which classroom behavior is more likely adopted by students?
- iii. What is the relationship between use of social networking websites and students' classroom behavior?
- iv. What is effect of social networking websites on students' classroom behavior?

Methodology

The nature of the study was descriptive and survey method was used. The population of the study was comprised of students enrolled in public postgraduate colleges of the Punjab, Pakistan. The researcher used convenient sampling technique to select the sample of study. Three districts (Lahore, Sahiwal and Jhang) were conveniently selected from all 36 districts of Punjab. The data were collected from the students enrolled in public postgraduate colleges of the Punjab.

Research Instruments

Researcher personally developed the questionnaires namely Social Networking Sites Scale (SNSS) and Behavior Measurement Scale (BMS). Alpha reliability coefficient (0.80) of SNSS and (0.72) of BMS (table 1). These statistics declared that SNSS and BNS were valid tools for present study.

Table No. 1. *Reliability Coefficient on SNSS and BMS*

Research Instrument Name	Cronbach Alpha Coefficient	Reliability
SNSS	0.80	
BMS	0.72	

Data Analysis

Data were analyzed by using Statistical Package for Social Sciences (SPSS) version 20. The interpretation of appropriate statistics is.

Table 2. *Use of Social Web Sites (Factor Wise)*

Factors	N	Minimum	Maximum	Mean	SD
Purpose of Social websites	500	1.60	5.00	3.67	.59
Influence	500	1.80	4.20	3.65	.58
Environmental Adaptation	500	1.70	4.80	3.57	.54
Academic Improvement	500	1.80	4.90	3.64	.58
Use of Social networking web sites (Overall)	500	1.72	4.82	3.63	.46

Table 2 represents the mean scores and SDs of subscales of SNSS. It was found that mean score of purpose of web sites was highest ($M=3.67$, $SD=.59$) followed by influence of web sites ($M=3.65$, $SD=.58$) and then academic improvement ($M=3.64$, $SD=.58$). Mean scores of environmental adaptations was lowest ($M=3.57$, $SD=.54$) as compared to whole sample ($M=3.63$, $SD=.46$). It was indicated from results that use of social web sites was mainly for a specific purpose. Students used the social web sites also of getting influence and academic improvement.

Table 3. *Frequent Behavior Shown by Students in Classroom due to Social Networking*

	N	Minimum	Maximum	Mean	SD
Violence	500	1.20	4.20	3.38	.68
Cooperative	500	1.90	4.80	3.59	.52
Obedient	500	2.10	4.00	3.65	.60
Reflective	500	1.40	5.00	3.55	.60
Class behavior (Overall)	500	2.00	4.82	3.54	.45

Table 3 showed the mean scores and SD's of students' behavior in class room. The mean score of behavior obedience is highest ($M=3.65$, $SD=.60$) followed by Cooperativeness ($M=3.59$, $SD=.52$) and then Reflective ($M=3.55$, $SD=.59$). The mean score of behavior violence was lowest ($M=3.38$, $SD=.68$) as compared with mean score of whole samples ($M=3.54$, $SD=.44$). This is obvious from analysis that most frequently adopted behavior was obedience followed by cooperativeness which means students become more obedient and cooperative. Students also showed reflective behavior but violent behavior very rear which means they learn more positive behavior than negative.

Table 4. *Intra-Scale Correlation Matrix*

Factors	Purpose	Influence	Environmental Adaptation	Cognition of Learning
Purpose	1**	0.34**	0.53**	0.61**
Influence		1**	0.26**	0.24**

Environmental Adaptation	1**	0.42**
Cognition of Learning		1**

** Correlation is significant at 0.01 levels (2 tailed)

Above table mentioned that sub scale purpose has weak but significant and positive correlation with sub scales influence (0.34**), moderate and significant correlation with environmental adaptation (0.53**) and strong positive correlation with cognition of learning (0.61**). Sub scale influence has weak positive correlation with environmental adaptation (0.26**) and cognition of learning (0.24**). Sub scale environmental adaptation has positive and moderate correlation with cognition of learning (0.42**). So in the light of illustrations of above table, SNSS is a valid tool for present study.

Table 5. Intra-Scale Correlation Matrix of BMS

Factors	Cooperative	Violence	Obedient	Reflective
Cooperative	1**	0.32**	0.17**	0.25**
Violence		1**	0.30**	0.40**
Obedient			1**	0.13**
Reflective				1**

** Correlation is significant at 0.01 levels (2 tailed)

Above table mentioned that sub scale of Behavior Measurement Scale (BMS) cooperative has weak positive correlation with sub scales violence (0.32**) and reflective (0.22**), very weak positive correlation with obedient (0.17**). Sub scale violence has positive correlation with obedient (0.30**) and reflective (0.40**). Sub scale obedient has positive correlation with reflective (0.13**). So in the light of illustrations of above table, BMS is a valid tool for present study.

Table 6. Correlation among Factors of SNSS and BMS

Variables	Students' Class behavior			
	Violence	Cooperative	Obedient	Reflective
Students' Social Networking Purpose of Social Networking	.29**	.50**	.42**	.37**
Influence	.31**	.50**	.40**	.41**
Environmental Adaptation	.36**	.56**	.45**	.43**
Academic Improvement	.24**	.57**	.46**	.41**

N=500, p<.01

In table 6, it is observed that all the factors of SNSS are significantly correlated with factors of BMS. It is found that all the four factors of SNSS i.e. purpose of social networking, influence, environmental adaptation and academic improvement are strongly correlated with cooperative behavior of students ($r=.50^{**}$, $.50^{**}$, $.56^{**}$, $.57^{**}$ respectively). Relationship of factors of SNSS with other BMS i.e. violence, obedience and reflectiveness is relatively

weak.

Table 7. Correlation between social networking websites and students' class behavior

Variables	N	Mean	SD	r-value	Sig.
Social web sites	500	3.63	.45	.68**	.000
Class behavior	500	3.54	.44		

$p < 0.01$

Pearson product moment correlation test (r) was conducted to find out the relationship between students' use of social networking websites and their classroom behavior at postgraduate level. It was found that a strong and positive correlation existed between use of social websites and students' classroom behavior, $r(498) = .68^*$, $p < 0.01$. Hence it is concluded that there existed a significant and strong positive relationship between the use of social networking websites and students' classroom behavior.

Table 8. Regression Weights: Social networking web sites; factor wise impact on students' performance

DV	Ind.V.	Estimate (β)	S.E.	C.R. (t)	Sig.Value	Impact
Behavior	<--- Purpose	.14	.03	4.71	**	Significant
Behavior	<--- Influence	.16	.03	4.94	**	Significant
Behavior	<--- Adaptation	.23	.04	6.27	**	Significant
Behavior	<--- Improvement	.14	.03	4.05	**	Significant

S.E=Standard error, CR= Critical ratio, DV= dependent variable, Ind.V.=independent variable

Standard regression analysis was run to find out the effect use of social web sites on students' behavior in classroom. Four factors were examined in SEM which were significant. The factor purpose of social networking sites showed a significant impact of purposeful use of social networking websites, $\beta = .14$, $t = 4.71$, $p < 0.001$. Regression analysis inferred a significant influence of social networking web sites on students behavior, $\beta = .16$, $t = 4.94$, $p < 0.001$. Similarly the factor Environmental Adaptation significantly predict the students behavior as they made environmental adaptation in their social lives as result of social networking, $\beta = .23$, $t = 6.27$, $p < 0.001$. it was also found that social networking websites produce significantly predictable positive improvement (academic) in students' class behaviour, $\beta = .136$, $t = 4.05$, $p < 0.001$. it can further visualized in fig 2.

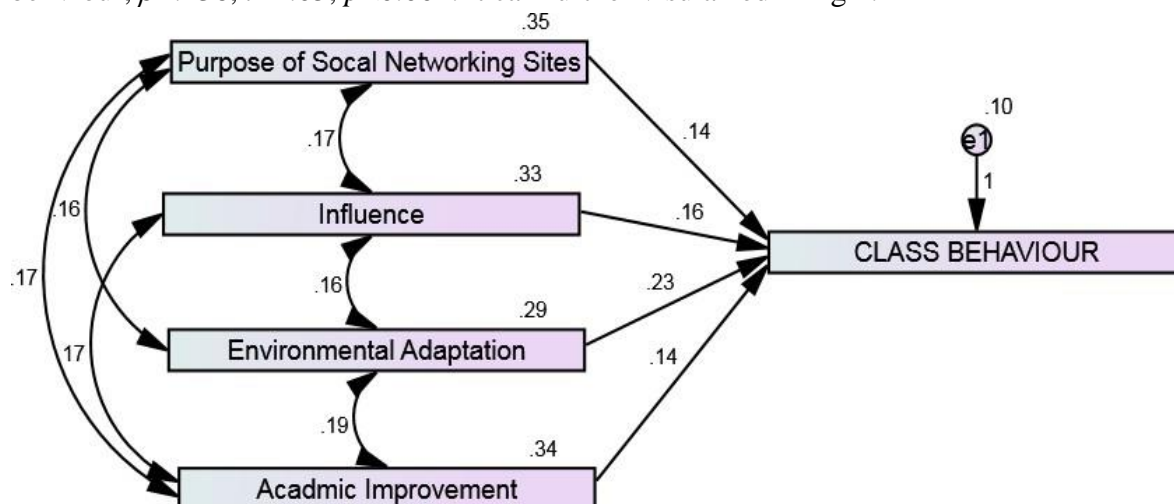


Figure 2. Path analysis of social networking websites with classroom behaviour

Results of Study

The study described that a relationship between students' use of social networking websites and their classroom behavior at postgraduate level was significant and strong positive relationship existed between the use of social networking websites and students' classroom behavior. It was indicated from results that use of social web sites was mainly for a specific purpose. Students used the social web sites for socialization and academic improvement. Hence it was indicated from the study that students use SNSs for academic purpose along with other aspects. This is obvious from present study that most frequently adopted behavior was obedience followed by cooperativeness which means students become more obedient and cooperative. Students also showed reflective behavior but violent behavior was very rare which means they learn more positive behavior than negative. The main effect of interaction of nature of study and academic qualification is significant for the use of social networking websites. It was deduced from the study that there was no significant difference in the mean scores of Arts and Science student's class behavior which describes that both arts and science students who use social networking site show same behavior in classroom. It was also depicted from analysis that student's behavior in classroom on the base of qualification was not similar. The science students showed better behavior in the classroom as compared to all other levels of qualification. It was obvious from the study that four factors, purpose of social networking sites showed a significant impact of purposeful use of SNSs, influence of social networking web sites was also significant on students behavior, Similarly the factor Environmental Adaptation significantly predict the students behavior as they made environmental adaptation in their social lives as result of social networking.

Discussion

Results of the study stated that strong and significant impact of social networking sites on student's behavior. Findings of present study supports the findings of Quan Haase and Young (2010), that most of college students use social networking sites and it affects their behavior in classroom along with academic activities. Findings of this study showed that almost all students of postgraduate classes use social networking websites. Current study negates the results of Lenhart, (2010) who concluded that use of social networking websites diverts the attention of students towards non educational activities. Results of present research declared that almost all postgraduate students were involved in social networking to develop social capital. Participants in present research indicated that there was no difference between arts and science students for using SNSs which supports the results of a study by Sheldon (2008). Most of students from postgraduate classes visited SNSs many times in a day and spend lots of time on social networking, reflects that the level of usage of social networking every day. It was obvious from the present study that due to excessive use of SNSs students are being affected and much time they spent on social networking sites and it supports the study of Choney (2010). Basically, the environment and many other factors may change the manners of a student using SNSs. Actually, social networking sites are one of those factors that can affect student's behavior. Present study showed that with the popularity of these sites' academic performance and behavior of the students could be affected, Karpinski and Kirschner (2010). Beside this research regarding SNSs, Karpinski (2009) also explained that users who take a longer period on social media like Facebook gave less time and attentions in study. Therefore, college authorities are particularly against the use of social networking websites especially in colleges. Many studies focused on the role social networking sites in strengthening and maintaining the relationships. The findings of present study endorsed findings of study Donath & Boyd, (2004) who described that social networking site for young people who bear constant illness or disabled due to any particular reason, they have an opportunity to make friends on social networking sites and these friends sometime become their dependable

and true friends. The present study supports results of research conducted by Third and Richardson, (2010) stated that capability to attach with others and share values needs and experiences of life, can help people and particularly young students experiencing a new social set up and identity in community. Present study supports findings of Munt, Basset & O' Riordan, (2002) concluded that Facebook assist students with having very low skills of communication and then developed into a very strong offline friendship. There are some students who interact to their friends more than other people on social networking sites. This study supports largely work of Baym, (2004) indicated that use of social networking affects behavior of students in classroom. While using social networking sites frequently the students waste their big time on interaction with friends rather than study. The students of teen age group are more likely to be affected from social media. In present study it was concluded that both arts and science students use social networking sites equally. College students use a different way of communication with peers and teachers on social networking sites. It provides them a great opportunity of learning. They share knowledge with each other and enhance self-learning concept. It was obvious from the study this study and similar results of Baym, (2007) social networking sites change the way of thinking of students and it affects their behavior as well. All factors of social networking as purpose of social networking, influence of social networking, Environmental Adaptation and academic improvement significantly predict the student's behavior in their social lives as result of social networking.

Educational Implications

Social networking websites should be extended and new Webpages should be created to increase the academic activities of students. Present study recommended that students should keep a balance between chit-chatting and their study. More focus should be on study. The current study recommends that the students of postgraduate classes should not allow using social networking sites in classroom as it affects their academic activities. Students of postgraduate classes should be asked to use social networking for purposeful activities or to seek help in their study. The impact of social networking websites on student's behavior should focus more on the positive behavior than on the negative side to achieve balance. The present study recommends that there should be awareness in the college students about the use of social networking sites.

References

- Andersen, P. (2007). *What is Web 2.0?: ideas, technologies and implications for education* (Vol. 1, No. 1, pp. 1-64). Bristol: JISC.
- Baggett, S. B., & Williams, M. (2012). Student behaviors and opinions regarding the use of social media, mobile technologies, and library research. *Virginia Libraries*, 58(1).
- Barra, F. (2005). Prediction behavior problem in Chilean school, child psychiatry and human development, 73-86.
- Baym, N. K., Zhang, Y. B., & Lin, M. C. (2004). Social interactions across media: Interpersonal communication on the internet, telephone and face-to-face. *New Media & Society*, 6(3), 299-318.
- Benage, C. E. (2011). *Negotiating online identities in social media: A study of University students*. Gonzaga University.
- Benage, C. E. (2011). *Negotiating online identities in social media: A study of University students*. Gonzaga University.
- Boyd, D. (2007). Social network sites: Public, private, or what. *Knowledge tree*, 13(1), 1-7.
- Boyd, D. M., & Ellison, N. B. (2007). Social network sites: Definition, history, and scholarship. *Journal of computer-mediated communication*, 13(1), 210-230.
- Butterfield, K. D., Trevin, L. K., & Weaver, G. R. (2000). Moral awareness in business organizations: Influences of issue-related and social context factors. *Human relations*, 53(7), 981-1018.
- Cain, J. (2008). Online social networking issues within academia and pharmacy education. *American journal of pharmaceutical education*, 72(1).

- Cantor, J. (2002). Fright reactions to mass media. *Media effects: Advances in theory and research*, 2(2), 287-306.
- Choney, S. (2010). Facebook use can lower grades by 20 percent, study says. *NBC Bay Area*. Dickey, M. (2004). The impact of web-logs (blogs) on student perceptions of isolation and alienation in a web-based distance-learning environment. *Open Learning: The Journal of Open, Distance and e-Learning*, 19(3), 279-291.
- Donath, J., & Boyd, D. (2004). Public displays of connection. *bt technology Journal*, 22(4), 71-82.
- Fitzgerald, R., Barrass, S., Campbell, J., Hinton, S., Ryan, Y., Whitelaw, M., ... & McGinness, N. (2008). Digital Learning Communities (DLC): Investigating the application of social software to support networked learning (CG6-36).
- Gemmill, E. L., & Peterson, M. (2006). Technology use among college students: Implications for student affairs professionals. *Journal of Student Affairs Research and Practice*, 43(2), 482-502.
- Junco, R., Merson, D., & Salter, D. W. (2010). The effect of gender, ethnicity, and income on college students' use of communication technologies. *Cyberpsychology, Behavior, and Social Networking*, 13(6), 619-627.
- Kalhotra, S. K., & Sharma, V. (2013). A comparative study on obedient/disobedient behavior in secondary+ 1 level students. *US-China Education Review*, 3(9), 685-92.
- Karpinski, A. C., & Duberstein, A. (2009, April). A description of Facebook use and academic performance among undergraduate and graduate students. In *Annual Meeting of the American Educational Research Association, San Diego, CA* (pp. 5- 10).
- Keser, C., & Van Winden, F. (2000). Conditional cooperation and voluntary contributions to public goods. *scandinavian Journal of Economics*, 102(1), 23-39.
- Kirschner, P. A., & Karpinski, A. C. (2010). Facebook® and academic performance. *Computers in human behavior*, 26(6), 1237-1245.
- Kleinberg, J. (2008). The convergence of social and technological networks. *Communications of the ACM*, 51(11), 66-72.
- Larrivee, B. (2000). Transforming teaching practice: Becoming the critically reflective teacher. *Reflective practice*, 1(3), 293-307.
- Lee, L., Chen, D. T., Li, J. Y., & Lin, T. B. (2015). Understanding new media literacy: The development of a measuring instrument. *Computers & Education*, 85, 84-93.
- Lenhart, A., Purcell, K., Smith, A., & Zickuhr, K. (2010). Social Media & Mobile Internet Use among Teens and Young Adults. Millennials. *Pew internet & American life project*.
- Levine, R. V. (2003). Measuring helping behavior across cultures. *Online Readings in Psychology and Culture (Unit 15, chapter 9)*, Center for Cross-Cultural Research, Western Washington University, Bellingham, WA.
- Lieberman, E., Hauert, C., & Nowak, M. A. (2005). Evolutionary dynamics on graphs. *Nature*, 433(7023), 312-316.
- Muise, A., Christofides, E., & Desmarais, S. (2009). More information than you ever wanted: Does Facebook bring out the green-eyed monster of jealousy?. *CyberPsychology & behavior*, 12(4), 441-444.
- Munt, S. R., Bassett, E. H., & O'riordan, K. (2002). Virtually belonging: Risk, connectivity, and coming out on-line. *International Journal of Sexuality and Gender Studies*, 7(2- 3), 125-137.
- Notley, T., & Tacchi, J. (2005). Online youth networks: researching the experiences of peripheral young people in using new media tools for creative participation and representation. *Journal of Community, Citizen's and Third Sector Media*, 1(1), 73-81.
- Nowak, M. A. (2006). Five rules for the evolution of cooperation. *science*, 314(5805), 1560- 1563.
- Pempek, T. A., Yermolayeva, Y. A., & Calvert, S. L. (2009). College students' social networking experiences on Facebook. *Journal of applied developmental psychology*, 30(3), 227-238.
- Reynolds, S. J. (2008). Moral attentiveness: Who pays attention to the moral aspects of life?. *Journal of Applied Psychology*, 93(5), 1027.
- Schill, R. (2011). Social networking teens more likely to drink, use drugs, study finds. *Article of MBA student*, 67-76.
- Sheldon, P. (2008). Student favorite: Facebook and motives for its use. *Southwestern Mass Communication Journal*, 23(2).
- Snyder, H. N. (2000). *Juvenile Transfers to Criminal Court in the 1990's: Lessons Learned from Four Studies: Summary*. US Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention.
- Sponcil, M., & Gitimu, P. (2013). Use of social media by college students: Relationship to communication and self-concept. *Journal of Technology Research*, 4, 1.
- SZ, S. S., Omar, S. Z., Bolong, J., & Osman, M. N. (2011). Facebook addiction among female university students. *Revista De Administratie Publica Si Politici Sociale*, 3(7), 95.