RELATIONSHIP OF STUDENTS' SOCIAL NETWORKING SITES USAGE WITH THEIR ACADEMIC PERFORMANCE, INTROVERSION AND SELF-ESTEEM

Mah Noor*, Hareera Zeb**, Noureen*** & Laila****

Abstract

This study aims to assess the relationship between social networking sites usage, academic performance, introversion and self-esteem of students. The current study also focus on age and gender differences in the usage of social networking sites. This study surveyed 150 participants (N=150) with the age range from 14 to 25 years, comprising 75 male students (n=75) and 75 female students (n=75). All these participants were approached from two schools, two colleges and two universities of Swabi. Three questionnaires; Rosenberg Self Esteem Scale (RSE, Rosenberg, 1965), Introversion Scale (IS, McCroskey, 1984) and Social Networking Time Use Scale (SONTUS, Olufadi, 2015) were used for data collection. The key findings of this research were that there was positive correlation between social networking time use and introversion; and the correlation of social networking time use with self-esteem and academic achievement was negative. There was negative correlation of introversion with self-esteem and academic achievement; and positive correlation was existed between self-esteem and academic achievement of students. The findings of this research also revealed that there were statistically significant differences at p<0.05 in the usage of social networking sites with respect to age and gender.

* Department of Psychology, University of Peshawar
** Department of Psychology, University of Peshawar E-mail: hareerazeb @ gmail. com
*** Women University Swabi
**** Women University Swabi

The findings of study are discussed in terms of its implication in various sectors i.e. education, student's family environment, and interpersonal relationship of students.

Keywords: Introversion, academic achievement, self-esteem,social networking time use.

Introduction

The internet has changed the world since its emergence over a decade ago. Internet especially Social Networking Sites (SNS), e.g Facebook, Watsapp, Instagram, snapchat, and Twitter, have connected each and every person in their everyday life, specially students. Nowadays social networking sites is main part of every one's life. People can create content and share it through social networking sites. A series of internet websites, programmes, and activities that promote communication, community building, engagement, and sharing are referred to as social media (Junco et al., 2011). The use of technology such as social media networks and the Internet is significant factor that can affect educational performance of students positively or negatively (Mehmood & Tawir, 2013).

Pempek et al. (2009) studied 92 undergraduate students in a study which revealed that students spend about 30 minutes per day on Facebook as part of their daily routine. Mingle and Adams (2015) conducted research on understanding web-based SNSs and their use among students, as well as the impact of online networking on students' language and spelling, as well as the impact of online networking on students' academic achievement. The findings revealed that the majority of respondents used Whatsapp and Facebook to make friends. Furthermore, a significant percentage of respondents reported poor punctuation and spelling, late completion of school tasks, less time for homework, and poor school performance as a result of their extensive use of social networking sites. The research by Owusu-Acheaw and Larson (2015) looked at how students in Ghana used online networking and how that affected

their scholarly achievements. Their findings showed that students' use of social networks had a negative impact on their academic performance and that students' use of social networks and educational achievement was negatively correlated.

Scholars have had mixed reactions with regard to the effects of social networks and how they influence academic success. Several studies have shown that undergraduades and adolescents' participation in social networks has both positive and negative effects on their academic performance (Mingle & Adams, 2015). According to Pem (2016), people's use of social networking sites may have a variety of effects on them, both good and bad. Pem'sresearch looked at 156 students and findings confirmed that students' use of social networking sites has a positive impact on their academic performance.

According to Ahn (2011), when the internet was not as open as it is today, people created internet chat rooms and forums to enable them to meet and chat with strangers online. Nowadays, internet platforms are set up to enable people to connect with people they already know via social media. People rarely create accounts on social networking sites unless they have friends who have already done so and have been invited to do so. As a result, unlike in the past, social networking sites often bind rather than separate people (Ruigrok, 2014). Wilcox and Stephen (2013) conducted five studies examining the impact of social networking sites on people's behaviour. The findings back up the idea that using the internet boosts a person's self-esteem when they concentrate on how they present themselves. Okamoto et al. (2011) studied 5,563 10th grade students in China and found that those with a high number of friends had less depressive symptoms, while those with a lower number of companions had more.

Ruigrok (2014) studied 114 undergraduate students from Dublin Business School as well as other Irish colleges and universities. The study's

main finding was that there was a small but substantial positive association between opportunity time spent on social networking sites and self-esteem.

Many studies have been performed about how personality traits influence one's use of social networking sites, with a few examples provided below.With its component traits of sociability, pacing, and vigour, extraversion predisposes individuals to positive affect and emotion, while introversion predisposes individuals to be more shy and withdrawn (Costa & McCrae, 1980). Wang et al. (2012) looked at the relationship between the Big Five personality traits, narcissism, self-esteem, and sensation seeking, and people's use of unique SNS features. 265 SNS users from a Chinese university provided self-reports. Personality factors play an important role in how people use social networking sites, according to the findings of this research. Extraverts are more likely to use SNS for communicative purposes, such as status updates, comments, and introducing new mates.

Haferkamp et al. (2012) conducted research to see whether there are gender gaps in how people view themselves on social media. The participants in their analysis were 54 men and 52 women who were randomly selected from 106 publicly available social networking site profiles. Boys are more likely than women to use their social networks for contact, according to the findings of this report. Women are more likely to login to social networks for comparative purposes and to look for information on other people's profiles, according to their research, while men are more likely to do so in order to find new companions.Girls are also more likely to upload portrait photos of themselves as self-presentation, while men are more likely to upload full-body photographs.

The Pew Internet & American Life Project has conducted a number of studies to see how respondents' age influences how much time they spend on the internet. On the American population, the Pew Internet & American Life Project and Zickuhr et al. conducted an investigation called Older Adults and

Internet Use (2012). The participants in their sample ranged in age from eighteen to plus 65. The findings of their study revealed that the age of internet users has an effect on how they use the internet. It was also discovered that the number of people over the age of 75 who use the internet fell dramatically.

All of the preceding studies laid the groundwork for the current research.

Objectives

The current research aims to study the effect of social networking sites on students' self-esteem, introversion, and academic achievement.

- To study the relationship between social networking sites, students' self-esteem, introversion, and academic achievement.

- To investigate age and gender differences in social networking sites usage.

Hypotheses

Following hypotheses were drawn from above literature.

1. Social networking sites usage will be positively correlated with introversion.
2. Social networking sites usage will be negatively correlated with self-esteem and academic achievement of students.
3. Social networking sites usage will be more among females than males.
4. Social networking sites usage will be more among college and university age group students as compared to school going students.

Methodology

Participants

A sample of 150 students were selected from two Swabi schools, two colleges, and two universities with an age range of 14-25 years. Of the 150 students, 50 were chosen from high school, 50 from college, and 50 from university. The study contained an equal number of males (n=75) and females (n=75) students.

Instruments

Three intruments were used in the present study for information accumulation, which are discussed below:

Rosenberg Self-esteem Scale (RSE)

It is self report inventory used for assessment of self-esteem, developed by Rosenberg (1965). It is comprised of ten items in which 5 items (2, 5, 6, 8, 9) are reverse scored. Participants must point out how much they agree or disagree with each of the 10 items using a 4-point scale that ranges from 1 strongly agree to 4 strongly disagrees. Internal consistency for the RSE ranges from 0.77 to 0.88. The alpha coefficient reliability of RSE in this study is 0.839. A higher score on the scale indicates high selfesteem.

Introversion Scale (IS)

A self report inventory used for measurement of introversion, developed by McCroskey (1984). It consist of 18 items. This scale is a self-report measure of introversion. Participants must point out whether or not they believe each statement applies to them using a 5-point scale that ranges from 1 strongly disagree to 4 strongly agrees. Reliability estimates have been above 0.80. The alpha coefficient reliability of introversion scale (IS) in this study is 0.78. According to McCroskey individuals scoring above 48 are highly introverted; those scoring below 24 have low introversion (are extraverted). Those scoring between 24 and 48 are in the moderate range.

Social Network Time Use Scale (SONTUS)

Participants' social network time use was measured using SONTUS is 29 item scale consist of 5 components. First component (relaxation and free periods) consist of 9 items, second component (academic related periods) consist of 6 items,third component (public places related use) consist of 5 items, component four (stress related periods) consist of 5 items and component five (motive for use) consist of 4 items. According to Olufadi (2015), anyone with a global score of 5 to 9 is considered a low user of social

media sites. A individual with a global score of 10 to 14 is considered an average user of social media sites. A individual with a global score of 15 to 19 is considered a heavy user of social media sites. A individual with a global score of more than 19 is considered an extremely high consumer. Alpha reliability estimates have been above 0.92. The alpha coefficient reliability of social networking time use scale in this study is 0.73.

Percentage of marks

For assessing the academic achievement of students, their marks percentages were taken into account. For this purpose the results of the previous class of students were taken from administration office of the school, college, and university.

Procedure

For the purpose of data collection students were approached in their respective institutions. Informed consent was taken from all of the participants and the investigator also explained to them that the study is for academic purposes only and that their confidentiality will be maintained. Written guidelines were also provided to the participants on the front page of the questionnaires. The only criteria for paricipants to took part in study was that they were over age thirteen year and that they had atleast "1" account on any social network. Two high Schools, two colleges and two universities were selected for the study. Then three questionaires were distributed among study participants and they were requested to attempt all of the questions. At the end they were thanked for their participation.

Results

The target of the present investigation was to explore realationship between social networking time usage, self-esteem, introversion and academic achievement of students. Descriptive statistics, Psychometric properties of the scales, Correlation Coefficient and t-test was run using SPSS 22.

Descriptive statistics

Table 1

Sociodemographic Characteristics of Participants at Baseline

Baseline Characteristics	N	%
Gender		
Male	75	50
Female	75	50
Age		
14-16 years	50	33.3
17-18 years	50	33.3
19-25 years	50	33.3
Qualification		
School	50	33.3
College	50	33.3
University	50	33.3

Note: N= number of participants.

Table 2

Psychometric Properties for Social Networking Sites Time Use Scale (SONTUS), Introversion Scale (IS), And Rosenberg Self Esteem Scale (RSE) (N=150)

Scale	*M*	*SD*	Range	Alpha Coefficient
SONTUS	11.50	2.70	5-18	.73
IS	25.57	5.67	11-39	.78
RSE	24.45	6.48	13-37	.83

Note: SONTUS = Social Networking Time Use Scale, IS = Introversion Scale, RSE = Rosenberg Self Esteem Scale

Table 2 indicates the alpha coefficients for Social Networking Sites Time Use Scale (SONTUS), Introversion Scale (IS), and Rosenberg Self EsteemScale (RSE). These all values are quite satisfactory. This means these scales are internally consistent and reliable for the present study.

Table 3

Descriptive Statistics and Correlation Coefficients between Social Networking, Introversion, Self-Esteem and Academic Achievement

Variables	1	2	3	4
1. SN	_			
2. IN	.72**	_		
3. SE	-.38**	-.54**	_	
4. A.A	-.36**	-.58**	.57**	_

Note. **p< .01;* SN = Social Networking, IN = Introversion, SE = Self esteem and A.A= Academic Acheivement.

The results shows that Social Networking is positively correlated with Introversion but negatively correlated with Self Esteem, and Academic Achievement. Introversion is negatively correlated with Self Esteem,and Academic Achievement. There is positive correlation between Self Esteem and Academic Achievement.

Table 4

Comparison of male and female on Social Networking Usage (N=150)

Variable	Gender						
	Male		**Female**				
	(n=75)		*(n=75)*				
	M	*S.D*	*M*	*S.D*	*t*(148)	*p*	**Cohen's *d***
SN	11.02	2.60	11.97	2.74	-2.16	0.03	0.35

*Note:*SN = Social Networking

Table 4 indicates gender differences on Social Networking Time Use Scale. Analysis of study shows that results are statistically significant at p<.05 and the mean difference indicates that females (M=11.97) use more social networking sites than males (M=11.02).

Table 5

One Way Analysis of Variance on Social Networking Time Use Scale across age

Varible	Age of the subjects						F	η^2	Post hoc
	14-16 years $n=50$		17-18 years $n=50$		19-25 years $n=50$				
	M	*SD*	*M*	*SD*	*M*	*SD*			
SN	9.8	2.66	13	2.17	11.68	2.29	22.38	0.95	2>3>1

Note: SN = Social Networking, p< 0.01

Table 5 indicates age differences (for age groups 14-16 years, 17-18 years and 19-25 years) on Social Networking Time Use Scale. Analysis of study shows that results are statistically significant at p<.01 and the mean difference indicates that students of age 17-18 (M=13) years use more social networking sites than students of age 14-16 (M=9.8) years and 19-25 years (M=11.68).

Discussion

Results of the present study indicated that there is negative relationship between social networking sites usage and academic achievement of students (see Table 3). This is consistent with previous studies. According to studies conducted by Kirschner and Karpinski (2010), heavy use of social networks is linked to lower academic success, and SNS users devote less hours per week to studying than non-users. Jacobsen and Forste (2011) discovered that the number of hours spent on the internet and students' academic achievement are inversely related. According to Chen and Peng's (2008) research, moderate social networking site users had better relationships with teachers and school grades than heavy users of social networking sites. Junco performed experiments that yielded similar results (2012). It has been widely demonstrated that such quick switching behaviour (i.e using social networking sites while studying) leads to worse learning outcomes in pupils and poorer task performance (American Psychological Association, 2006). This is owing

to the fact that switching forces a person to juggle her or his limited cognitive resources in order to properly complete the various tasks. This juggling results in higher inefficiency in the completion of each job, more mistakes are made and it takes much longer than sequential work (Ophira et al., 2009). Our findings can be explained using Mayer and Moreno's (2003) framework. While studying, paying attention to SNSs or texting inhibits important processing since the energies spent on these devices cannot be employed to process lecture information. Second, using SNSs or texting during studying causes an information processing bottleneck, limiting the capacity for representational holding; working memory can only keep a certain amount of information, and once that limit is reached, new information cannot be held. The supplied information cannot be encoded for deeper learning if representational holding is restricted.

Further analysis of the data has shown that a person's self-esteem is negatively correlated with time spent on internet such as facebook, Instagram, and twitter (see Table 3). This is consistent with studies conducted by following researchers. Steinfield et al. (2008) found a clear connection between social networking site use and a person's self-esteem in their study on social networking sites and self-esteem.Individuals with lower self-esteem were linked to more online activity as well as some self-promotional material, according to Mehdizadeh (2010). This finding could be explained by the social compensation hypothesis, which states that people who are socially inept, such as those with low self-esteem, are less comfortable interacting with peers in face-to-face situations and are highly motivated to compensate for their lack of social skills by engaging in online interactions. (McKenna et al., 2002).

Analysis of scores of social networking time use scale and introversion scale has shown that students who score high on introversion scale also score high on Social Networking Time Use (see Table 3). This finding is supported by Chen and Peng (2008), Ebeling-Witte et al.(2007) and Mitchell et al. (2011). Chen and Peng (2008) found that heavy SNS users were more likely to

be depressed, mentally sick, lonely, and introverted than non-heavy SNS users. According to research conducted by Ebeling-Witte et al. (2007), there were substantial associations between introversion, neuroticism, and problematic Internet use as measured by the Online Cognition Scale and shyness. Introverts spent more time on the internet than extroverts, according to a study by Mitchell et al. (2011). The anonymity, no need of physical contact, strict control of information, and ease with which it is possible to find like-minded people provided by Internet, SNSs gives an excellent answer to people who have a difficult time forming social contacts due to their introverted personality.

Further analysis of scores of of Social Networking Time Use Scale has shown that females (M=11.97) use more social networking sites than males (M=11.02) (See Table 4). The reasons for this conclusion might be explained by the fact that females in the Internet world try to hide their names and personal information in order to maintain their privacy. Females don't reveal themselves to individuals they don't know because of societal pressure and traditional gender norms (Fallows, 2005). Girls are more likely to utilise social media to keep in contact with friends who live nearby or attend other schools, but males are less likely to do so Tüfekçi's (2007). Korkut (2005) discovered that females had better communication skills than males, and he attributed this to the fact that females are more sociable than males.

Moreover this study also revealed that age differences affect the usage of internet (see Table 5). Teenagers often put a lot of work into personalising their profiles and creating an online personality that they hope will be accepted by their peers. Teenagers use social media to try to be "cool," just like they do in real life, by following certain social rules. Boyd (2008) discovered, for example, that the number of friends an adolescent has is a good indicator of their "coolness."

Limitations and Recommendations:

The main constraint was that it was contingent on the members' trustworthiness and respectability. Another limitation of this study was that it only included undergraduate students, and the thesis could not be completed. Furthermore, the students who were asked to participate came from two universities, two colleges, and two schools in Swabi, and the results may vary based on demographics. A analysis should be conducted to determine why studies from various countries yielded different results in terms of the effects of self-esteem and time spent on informal contact locales.

It is also suggested that a study be conducted to look at personality, gender, and age gaps in social networking site use. Since the current study's sample size was insufficient, a larger study is needed to allow for generalisation of findings across countries.

Significance

This test is essential for teachers, parents, and students. This research paper will assist teachers in understanding how students' use of social media sites affects their academic success and how it relates to their identity and self-esteem.This study is also important for parents because it demonstrates how their children's use of social networking sites (SNS) affects them. This research will also enable students to learn about the different benefits and drawbacks of using social networking sites. It will also provide students and other researchers with useful knowledge for conducting similar studies.

Conclusion

This research raises awareness among students, teachers, and parents about how the number of hours spent on social networking sites affects students' school results. This research also raises awareness among media producers about the connection between mental well-being and the use of social networking sites.

The study discovered that while using social networking sites has numerous benefits for students, such as sharing information and ideas, improving reading and writing skills, and so on, it can also have a negative impact on students' academic achievement if not used appropriately.As a result, it is recommended that students make the best decisions possible while using social networking platforms, such as not only using them for entertainment and messaging, but also for study and information.Since the current study found a negative connection between the amount of time spent on social networking sites and academic achievement, understudies should be encouraged to limit their time spent on social networking sites on a regular basis and devote those hours to thinking.

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