Impact of Social Media Usage on Academic Procrastination

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Abstract: This research study aims to discover the possible relationship between social media usage with academic procrastination exhibited by students. The multistage sampling technique was utilized and a sample of N=240 belonging to different educational levels (intermediate, graduate, and post-graduate), stratified by gender (boys=120 & girls=120), was drawn from various educational institutions in the Peshawar district. The researchers utilized Social Networking Time Use Scale: SONTUS (Olufadi, 2016) to measure the time spent by the subjects on social networking sites. Whereas the Academic Procrastination Scale: APS (McCloskey, 2011) was used to gauge the Academic procrastination level of the respondents. Results indicated significant positive correlation between social media usage and academic procrastination, r = 0.424; p < 0.01. An inverse relationship of educational level with social media time usage and academic procrastination was also manifested, r=-.153; p < 0.01 and r = -.167; p < 0.01. Moreover, there was no significant difference in academic procrastination tendency by gender F(1,238)= 1.334, P >.05.

Key Words: Academic Procrastination, Social Media, Social Networking Sites (SNSs)

Introduction
The rapid boom in the number of social media websites and internet technologies has provided a platform for its ever-growing users where they can discuss ideas, share personal information, create content, and have a discourse and network. Social media helps users to share information, in different digital forms, with other users. Social media is an area of the community that helps people to come together to share common or mutual interests/interests. Social media include Facebook, Twitter, WhatsApp, Viber, Google+, Instagram, Pinterest, and YouTube (Mingle & Adams, 2015). The topics discussed on social media platforms are related to the different fields including environment, political discourse, entertainment, technology industry, personal photos and videos. Social media users have increased over time, and they are also spending more time on these platforms.

Research suggests that this excessive use affects the mental health and social life of users. To mention a few, more time spent online decreases communication and social participation (Kraut et al., 1998) and may result in poor mental health, including psychological distress (Pantic, 2014; Park, 2013), poor quality sleep (Gamble et al., 2014; Cain & Gradisar, 2010), negative body image (Fardouly, 2018; Wagner, Aguirre, & Bryant, 2016; Perloff, 2014), cyberbullying (Grigg,

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Addictive use of social media can rob precious time of students. It motivates people to avoid or delay activities. This intentional delay of an intended course of action is called procrastination (Ferrari, 2000). It is also defined as a voluntary and purposeful delay of task completion to the point of experiencing subjective discomfort (Steel, 2007; Kachgal, Hansen & Nutter, 2001). Academic procrastination is potentially detrimental among all facets of procrastination (Rabin, Fogel, & Nutter-Upham, 2011; Schraw, Wadkins, & Olafson, 2007).

Academic procrastination results in failure to achieve optimal desired outcomes in time (Howell & Watson, 2007). Such procrastinating behaviors include delays in preparing for examination, homework, or assignment completion and writing term papers (Schouwenburg, Lay, Pychyl, & Ferrari, 2006). Students studying at intermediate, graduate, or even post-graduate levels face such kind of procrastination. According to Schraw et al. (2007), the procrastinating tendency is particularly prevalent among college and university students who use social media. Among the social network users, 67% are between 18-29 years old, and one can confidently claim that they use multiple social media platforms (Michikyan, Subrahmanyan, & Dennis, 2015).

Social media usage has become popular because of its reach, speed, and ease of use. Teachers and parents have concerns that these media have an impact on the students' academic performance as they would not be able to accomplish academic tasks due to their excessive time spent on social networking sites (Nalwa, & Anand, 2003). Therefore, this research study was designed and conducted to assess the association between social media usage with academic procrastination in undergraduate, graduate, and post-graduate students of Peshawar University.

Many researchers (e.g., Hasnain, Nasreen & Ijaz, 2015; Peter, 2015; Kirschner & Karpinski, 2010; Suhail & Bargees, 2006) have investigated the potential danger of the use of social media linked to academic procrastination in students. Peter (2015) found that students who used social media failed to perform well in exams. Similarly, Kirschner & Karpinski (2010) also confirm that heavy users of social media got lower GPAs than nonusers. Hasnain, Nasreen, & Ijaz (2015) also emphasized that social media remains a major distraction for the current generation. Contrarily, some other studies support that SNSs help students in their learning by encouraging discussion, knowledge-sharing, interaction with teacher/supervisor in an informal setting, and easy access to information (Kitsantas, Dabbagh, Chirinos, & Fake, 2016; Ainin, Naqshbandi, Moghavvemi, & Jaafar, 2015), helps in collaborative learning (Othman, & Musa, 2014) and provides students with an opportunity to enhance their critical thinking – the basic aim of education (Bugeja, 2006).

**Rationale of the study**

The technological advancement in media has greatly shaped the social communication of people. Many research studies support the assumption that students are more attached to social networking sites. The research evidence strongly suggests that excessive social media usage by students has a potential impact on their behavior in general but academics in particular (Boyd & Ellison, 2007). Parents and teachers are apprehensive about children's academic achievements, and they complain that after spending time on social networking sites, they are not left with enough time to study. Thus, this research was conducted to ascertain the association between students' use of social media and academic procrastination.

**Hypotheses of the study**

1. Subjects who engage in high social media users tend to procrastinate more academically.
2. Subjects’ academic procrastination tends to decrease with the increase in educational level and age.
3. Academic procrastination would correlate negatively with academic performance.

Sample
The researcher used a multistage sampling design. Ten departments of Peshawar University were randomly selected. With the cooperation of the concerned authorities, a list of all students within these departments was prepared that served as a sampling frame. Students were stratified concerning gender; 24 students (12 male & 12 female) from each department were randomly chosen. Hence, a total number of 240 students constituted the sample size of this study.

Measures
Social Networking Time Use Scale (SONTUS)

The instrument to measure the time spent on the different sites of social media is developed by Olufadi (2016). The SONTUS is a 29-item Likert-type scale with five subscales measuring time spent on the different sites of social media in different situations and places for seven days. The subscales are based on five components: relaxation and free period use, academic-related period, public places-related use, stress-related period, and motives. Separate scores on these subscales contribute to a total global score indicating an individual as a low, average, high and extremely high user of social networking sites (SNSs).

Academic Procrastination scale (APS)

The Academic Procrastination Scale (McCloskey, 2011) is a Likert-type scale – based on 25 items. The aim of APS is to measure specific academic procrastination instead of focusing on a specific task. It is designed in a way that higher scores on the scale clearly demonstrate greater academic procrastination.

Demographic data sheet
A demographic data sheet was also incorporated to identify the respondents' names, age, gender and academic scores. This sheet also included brief questions regarding the respondents' social media exposure and use.

Sampling Procedure
With the permission of the concerned departmental head, the identified subjects (n=240) were approached on campus. They were made aware of the purpose of the study. The respondents were assured of complete confidentiality to make them comfortable responding honestly. First, the demographic data sheet was given to the subjects to take their personal information into account. Following the completion of the demographic datasheet, the Social Networking Time Use Scale (SONTUS) was administered to the respondents. The SONTUS scores helped identify the respondents as low, average, high, or extremely high users of social networking sites. Finally, they were urged to complete the Academic Procrastination Scale that yielded the procrastination scores of the respondents.

Data Analysis
Correlations were computed to find an association between the variables under study. To compare means of academic achievement and smartphone possession by gender ANOVA was applied under SPSS. Chi-square statistics were used to find a gender-wise variation in social media usage.

Results
Table 1. Descriptive Statistics on SONTUS and APS Scale for N=240

| Type of SNSs User       | f  | %   | Academic Procrastination | f  | %   |
|-------------------------|----|-----|--------------------------|----|-----|
| Low user of SNSs        | 71 | 29.2| Low                      | 40 | 16.7|
| Average user of SNSs    | 144| 60  | Average                  | 164| 68.3|
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The descriptive statistics on the Social Networking time use scale reveal four types of SNS users, i.e., low, average, high, and extremely high users, with the majority (60%) of the population being average users of SNSs (M=11.27, SD=2.95). Likewise, the Academic Procrastination scale also shows three levels of academic procrastination: low, average, and high academic procrastination. Most of the respondents (68.3%) manifested average academic procrastination with a mean score of 73.35 (SD=17.008).

**Table 2. Descriptive Statistics on Hobbies for N=240**

| Hobbies                      | Boys          | Girls         |
|------------------------------|---------------|---------------|
| Enrichment hobbies           | f: 34         | f: 33         |
|                             | %: 28         | %: 27         |
| Web surfing/ Social networking | f: 55        | f: 58        |
|                             | %: 45         | %: 48         |
| TV/Music/Movies              | f: 46         | f: 45        |
|                             | %: 37         | %: 38         |
| Sports/ Outdoors             | f: 76         | f: 10        |
|                             | %: 63         | %: 8.3       |
| Creative hobbies painting/writing | f: 5        | f: 16        |
|                             | %: 3.3        | %: 13.3      |
| Collecting stamps/coins      | f: 9          | f: 26        |
|                             | %: 6.7        | %: 8.3       |
| Domestic hobbies             | f: 4          | f: 43        |
|                             | %: 1.7        | %: 36.7      |

The hobbies of the respondents reveal that boys (28%) and girls (27%) were almost equally involved in enriching hobbies like reading, writing, computer programming, blogging, etc. Girls (48%) were more active than boys (45%) on social networking sites, web-surfing, chatting, watching DIY (do it yourself) tutorials, and motivational videos on YouTube. Boys and girls having hobbies like watching TV and listening to music were almost equal in number (i.e., 37% & 38% respectively). A huge difference was noted in both genders (boys: 63% & girls: 8.3%) regarding sports like cricket, football, volleyball, and outdoor hobbies such as traveling, hiking, hunting, swimming, gym workout, gardening, etc. More girls (13.3%) were engrossed in creative hobbies (photography, sketching, painting, jewelry making, crocheting, knitting) as compared to boys (3.3%). Moreover, girls (8.3%) engaged slightly more in collection hobbies than boys (6.7%). Girls collected things like rings, bangles, soft toys, shoes, and purses, whereas boys collected stamps, coins, etc. Girls (36.7%) were massively occupied in domestic hobbies (cooking, baking, stitching, etc.) than boys (1.7%). It can be inferred from the demographics mentioned above that both genders engaged more in online media than in enrichment activities. Also, boys were more involved in sports and outdoor activities that kept them physically active, while girls were occupied with domestic hobbies.

**Table 3. Inter-correlations among Social Networking Time use, Academic Procrastination, Educational level and Academic score (N=240)**

| Educational Level | Academic score | SONTUS score | APS score |
|-------------------|----------------|--------------|-----------|
| Educational Level | 1              | .114         | -.153     | -.167     |
| Academic score    | 1              | -.150        | -.243**   |           |
| SONTUS score      | 1              | 1            | .424**    |           |
| APS score         |                |              | 1         |           |

**. Correlation is significant at the 0.05 level (2-tailed).**

**. Correlation is significant at the 0.01 level (2-tailed).**
The correlation matrix in Table 3 indicates that the respondents’ APS Scores and SONTUS scores are positively correlated, \( r = 0.424^{**} \). High scores on the social networking time use scale (SONTUS) positively correlate with a high academic procrastination scale (APS) scores. This matrix also shows the inverse relationship between educational level and academic scores with SONTUS and APS scores. As hypothesized, with the increase in educational level and age of the respondents, their social media time usage and academic procrastination decrease, \( r = -0.153 \) and \( -0.167 \) respectively. It reiterates findings of the previous studies (e.g., Khan, Arif, Noor, & Muneer, 2014; Özer, 2011; Stollak, Vandenberg, Burklund, & Weiss, 2011) that younger students use social networking websites more than older students. Relatedly, the academic scores decline with increased social media usage, \( r = -0.150 \). Likewise, academic procrastination correlated negatively with academic performance, \( r = -0.243^{**} \). Previous research (e.g., Kim & Seo, 2015; Akinsola, Tella, & Tella, 2007) also reported that students who procrastinated less scored significantly better in CGPA than moderate and high procrastinators.

### Table 4. Descriptive Statistics on Academic Achievement of Smart Phone Users (N=120)

| Possession Smartphone | Gender | Mean score % | Std. Deviation | N |
|-----------------------|--------|--------------|----------------|---|
| Yes                   | Boys   | 74.52        | 8.179          | 108 |
|                       | Girls  | 73.42        | 6.826          | 96  |
|                       | Total  | 74.00        | 7.556          | 204 |
| No                    | Boys   | 80.17        | 8.658          | 12  |
|                       | Girls  | 69.33        | 7.390          | 24  |
|                       | Total  | 72.94        | 9.219          | 36  |
| Total                 | Boys   | 75.08        | 8.329          | 120 |
|                       | Girls  | 72.60        | 7.072          | 120 |
|                       | Total  | 73.84        | 7.794          | 240 |

Gender \( F(1,236) = 8.510, \ P < .01 \); Smartphone user \( F(1,236) = 5.658, \ P < .05 \); Univariate analysis of variance reveals that the main effect for Gender indicate a significant difference between boys (\( M = 75.08, SD = 8.33 \)) and girls’ (\( M = 72.60, SD = 7.794 \)) academic achievement, \( F(1,236) = 8.510, \ P < .01 \). However, the two main effects were noticed after a significant interaction between the two factors indicating that smartphone possession in relation to gender affects the academic achievement of the respondents \( F(1,236) = 5.658, \ P < .05 \). Results demonstrate that smartphone possession has a remarkable impact on academic achievement \( F(1,236) = 5.658, \ P < .05 \). Further, the impact of smartphones on gender may be substantiated by the findings in Table 2, which show that girls are more active users of SNSs than boys.

### Table 5. Academic Procrastination in relation to Gender

| Gender | Mean score % | Std. Deviation | N |
|--------|--------------|----------------|---|
| Boys   | 75.27        | 17.48          | 120 |
| Girls  | 74.56        | 15.00          | 120 |
| Total  | 74.91        | 17.00          | 240 |

Academic Procrastination*Gender \( F(1,238) = 1.334, \ P > .05 \) Table 5 shows that gender has no influence on the findings of academic procrastination, \( F(1,238) = 1.334, \ P > .05 \) as the academic procrastination mean scores for boys and girls are (\( M = 75.27, SD = 17.48 \)) and (\( M = 74.56, SD = 15.00 \)) respectively.
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Table 6. Awareness about the Social Networking Sites by Gender

| SNSs    | Gender | Awareness | Chi square | Significance |
|---------|--------|-----------|------------|--------------|
|         |        | Yes %     | No %       |              |
| Boys    | 50     | 0.0       |            |              |
| Girls   | 47.5   | 2.5       | 3.077      | .244         |
| Boys    | 49.5   | 0.8       |            |              |
| Girls   | 47.2   | 2.5       | 1.034      | .619         |
| Boys    | 45.3   | 4.2       |            |              |
| Girls   | 43.8   | 6.7       | .776       | .558         |
| Boys    | 35.8   | 14.2      |            |              |
| Girls   | 33.3   | 16.7      | .352       | .693         |
| Boys    | 36.7   | 13.3      |            |              |
| Girls   | 31.7   | 18.3      | 1.386      | .327         |
| Boys    | 38.4   | 15.8      |            |              |
| Girls   | 30.2   | 19.2      | .586       | .566         |
| Boys    | 15.0   | 35.0      |            |              |
| Girls   | 22.5   | 27.5      | 2.880      | .131         |
| Boys    | 13.3   | 36.7      |            |              |
| Girls   | 15.0   | 35.0      | .164       | .840         |
| Boys    | 10.0   | 40.0      |            |              |
| Girls   | 7.5    | 42.5      | .519       | .632         |

Whatsapp $X^2$ (1, n=240) 3.077, P >.05; Facebook $X^2$ (1, n=240) 1.034, P >.05; Youtube $X^2$ (1, n=240) .776, P >.05; Instagram $X^2$ (1, n=240) .352, P >.05; Viber $X^2$ (1, n=240) 1.386, P >.05; Twitter; $X^2$ (1, n=240) .586, P >.05; Pinterest $X^2$ (1, n=240) 2.880, P >.05; Snapchat $X^2$ (1, n=240) .164, P >.05; IMO $X^2$ (1, n=240) .519, P >.05.

Awareness and incognizance of the social media channels were equally common among boys and girls. The knowledge regarding social media avenues was comparable. Cognizance regarding Whatsapp (98%), Facebook (97%), and Youtube (89%) were prominent, followed by Instagram (69%), Viber (68%), and Twitter (65%), whereas awareness regarding Pinterest (37%), Snapchat (28%) and IMO (17%) was limited.

Table 7. Social Networking Sites Membership/ Use

| SNSs    | Gender | Membership | Chi square | Significance |
|---------|--------|------------|------------|--------------|
|         |        | Yes %      | No %       |              |
| Whatsapp| Boys   | 45         | 5          | .000         | 1.000 |
|         | Girls  | 45         | 5          |              |       |
| Facebook| Boys   | 41.7       | 8.3        | 1.77         | .268 |
|         | Girls  | 36.7       | 13.3       |              |       |
| Youtube | Boys   | 30.8       | 19.2       | .926         | .442 |
|         | Girls  | 35         | 15         |              |       |
| Instagram| Boys | 30         | 20         |              |       |
|         | Girls  | 26.7       | 23.3       | .543         | .581 |
| Viber   | Boys   | 16.7       | 33.3       | .154         | .845 |
|         | Girls  | 15         | 35         |              |       |
| Twitter | Boys   | 16.7       | 33.3       | .154         | .845 |
|         | Girls  | 15         | 35         |              |       |
| Pinterest| Boys | 6.7        | 43.3       |              |       |
Chi-square statistics show no significant difference between the girls and boys in using social networking sites (SNSs). The use of social networking sites is equally common among all the respondents. However, the most commonly used SNSs are WhatsApp (90%), followed by Facebook (78.3%), Youtube (65.8%), and Instagram (57%).

Discussion

Procrastination or delaying something is a common and predominant phenomenon, but it is often overlooked and inadequately understood. It has serious implications for the person who indulges in such a behavior. Procrastination is a self-regulation failure; it's that gap between intention and action. A person, who procrastinates, makes himself happy at a certain moment but does so at the cost of damage to himself in the future (Sirois & Pychyl, 2013) as Tice and Bratslavsky (2000) described procrastination as an instance of "giving in to feel good" where people prefer short-term happiness over long-term target achievement.

This current study aimed to investigate the relationship between the use of social networking sites and academic procrastination. This study sought to examine the role of the social networking behavior of the respondents in delaying their academic tasks – while keeping in view the different demographic factors including age, gender, and education. The desired sample of this research project was such college and university students who planned vocational life. Therefore, academic achievement is of utmost importance since their professional life relies on it. At this stage, if they habitually procrastinate, it impacts their tendency to achieve academic goals. Hence it is of paramount significance to explore the reasons for academic procrastination and devise strategies to cope with it.

Procrastination means delaying something, but all forms of delay are not procrastination. As claimed by Pychyl (2013), "all procrastination is a delay, but not all delay is procrastination." For instance, it's perfectly normal if a student prioritizes some academic tasks and delays others according to need, urgency, or time constraints. But the deliberate and needless postponement of any scholastic task is academic procrastination. Academic procrastination is a nuisance to be worried about because it interferes with a student's academic pursuits. Ideally, the goals an individual sets for himself or s/he should develop such volitional skills and diligence to pursue those goals.

In the last ten years, a dramatic increase in the use of social networking sites and the number of people using them has been witnessed. These networking channels have become an essential part of students' everyday life. The current study reveals that students who excessively use social media are at a greater risk of indulging in academic procrastination. Also, academic procrastination is adversely related to academic performance. These results are in line with past research (e.g., Balkis & Duru, 2017; Kirschner and Karpinski, 2010; Sandhora, 2015; Joubert, 2015; Islak, 2011 and Liu, 2010), which
revealed that an increase in the exposure to the social media fosters the academic procrastination tendency in the students.

Interestingly, the demographics show that most of the subjects possessed smartphones, meaning they had access to social networking sites. They have access to these social networking sites and may use them unduly, so their academics remain affected. On the other hand, it can also be argued that they might be procrastinating on the routine academic tasks like weekly assignments, presentations, and monthly tests, but before final tests, they may study rigorously, putting too much strain on themselves. Hence, accomplishing the task may create burnout, which is not good for their physical and mental well-being (Mortazavi, 2016).

The academic procrastination of the subjects declined with the increase in age and educational level. Postgraduate level students procrastinated less than undergraduate and intermediate level students. The reason may be that at the postgraduate level, the competition is tough. Studying advanced courses require increased concentration, time, and hard work. They need to focus on enhancing their knowledge and critical thinking skills for academic activities like participating in discussion forums, writing term papers and research work, etc. The prospect of securing a good job shortly keeps them motivated. Also, with increasing age, their experience broadens, and they become more mature and responsible individuals (Beutel et al., 2016; Balkis & Duru, 2009). Postgraduate students' social media use was also limited compared to other age groups. Greater academic challenges, time constraints, and increased maturity may be responsible for this occurrence. Stollak, Vandenberg, Burklund, & Weiss (2011), also supported this phenomenon by stating that younger students rely more on social media to establish their social contacts, whereas senior students already have it.

Findings of the present study advocate no significant variation by gender regarding social media awareness and membership. Whether common, moderate, or rare, social networking sites were irrespective of gender. The most popular SNSs were Whatsapp, Facebook, and Youtube, which Instagram followed, Viber, and Twitter, whereas the use of Pinterest, Snapchat, and IMO was limited. Intriguingly the results also revealed high SNS awareness in comparison to their use. It indicates that not all the respondents used social networking sites despite being aware of them.

Gender variable did not have any influence on the academic procrastination tendency of the respondents as researchers' findings – based on the scores of academic procrastination – did not vary between girls and boys. A substantial body of research also supports that procrastination does not vary based on sex differences (Sandhora, 2015; Joubert, 2015; Islak, 2011; Liu, 2010; Solomon & Rothblum, 1984). In contrast, some studies (e.g., Balkis & Duru, 2017; Mandap, 2016) revealed that female students exhibit lower levels of academic procrastination than male students. There is a need for further study to investigate the relationship between gender and academic procrastination.

Recommendations

The present study can be duplicated with a larger and more demographically diverse sample to strengthen and expand this important line of research. In academic settings, students face many academic tasks, and they may procrastinate for many different reasons. Apart from excessive social media use, academic procrastination might result from self-regulation failure, lack of self-confidence, self-efficacy, time estimation error, perfectionism, fear of failure, lack of motivation, inability to concentrate, and task aversiveness. There has been negligible work on the abovementioned factors associated with academic procrastination in the Khyber Pakhtunkhwa region. There is a need to explore the causal factors of academic procrastination more deeply. The basis of which task-oriented coping programs can be devised by researchers, educators, and practitioners to help students get rid of this incapacitating habit as it hinders their achievement of desired academic goals.
Nevertheless, social media has become an essential part of our daily life; it has been embedded in our culture. It facilitates people to interact in virtual communities, thus diminishing communication barriers and allowing easy access to information. But we should make positive use of it in every facet of our life, including education. Though the current study found a negative impact of excessive social media use on academic achievement, it may enhance students’ academic performance if used positively. Therefore, future research must further study social media’s impact on variables like students’ academic goals, interaction with teachers, sharing of information, online courses, joining educational platforms, etc. It will help understand and highlight the true correlation between these two variables.
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