

Educational Motives versus Perceived Negative Consequences of Facebook Usage among University Students

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Abstract

There is conflict in previous research about the prospects and the consequences of Facebook raising eye brows whether to use Facebook in a pedagogical design. This paper analyzed the educational motives and the perceived academic consequences as the predictors of Facebook use, besides explaining the interaction effects of time patterns (daily and weekly) on the educational motives (prospects) and perceived academic consequences (curse). The theoretical support was extended from the Uses and Gratification and the Displacement theories, while the data was collected through survey from the public and private sector universities of Lahore, by applying the convenience sampling technique (n=559). The multiple regressions found that the variable of educational motives (prospect) made significant contribution to the prediction of Facebook usage when compared with the perceived academic consequences (curse). The university students gratified their educational needs from Facebook and they were active for seeking these motives but were less of the opinion that Facebook had negative effects on their academics. The Two-Way ANOVAs were applied to explain the interaction effects. There was a significant difference between the daily and weekly time consumption of students for the educational motives and the perceived consequences. However, the students after two hours of usage on daily basis or in different intervals of the week perceived that the Facebook usage resulted into the negative academic consequences. The study recommends that university students daily use of Facebook should not exceed two hours. The teachers should use Facebook informally and integrate it in pedagogy to stimulate students interest.

Keywords: Facebook usage, educational motives, perceived academic consequences, time patterns, university students, Lahore

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Introduction

The social network sites are, “the web-based services that allow individuals to construct a public or semi-public profile within a bounded system, articulate a list of other users with whom they share a connection, and view and traverse their list of connections and those made by others within the system” (Boyd & Ellison, 2007, p.211). Beginning in September 2005, Facebook management as part of its expansion plan took the decision to allow Facebook use to high school level students, corporate professionals, and finally, everyone (Boyd & Ellison, 2007). Students who were involved in online relationships were found to be those who were willing to communicate in real life justifying the rich get richer hypothesis, which states that the internet primarily benefits extraverted individuals (Sheldon, 2008). The social networking site of Facebook is also a broader category of social media and the social medium is any website that allows social interaction and these sites offer youth a portal for entertainment and communication (O’Keeffe et al., 2011, p.800). Facebook is found to be the social networking site for remaining in contact among students. Female students aged 22 and above were found to be the excessive Facebook users and the students were found to be using Facebook for social interaction, communication, educational and religious gratifications (Shahnaz, 2011). The youth were found to be motivated by virtual companionship, escape, interpersonal habitual entertainment, self-description of one’s own country, self-expression, information seeking and passing time gratifications (Dhaha & Igale, 2013). The youth were found to be motivated by virtual companionship, escape, interpersonal habitual entertainment, self-description of one’s own country, self-expression, information seeking and passing time gratifications (Wok & Misan, 2015). In this way the uses and gratifications research is done in international context which reflects that Facebook is used for diverse motives.

In Pakistan, the Uses and Gratifications of Facebook were explained by Hussain and Saleem (2016) with the help of descriptive statistics. The study found that youth was using the Facebook for social interaction, entertainment, communication, education, political, business, religious, passing time, companionship and the self-presentation. However, these Pakistani scholars had researched the associations of the motives with the passive Facebook usage.

Madge, Meek, Wellens and Hooley (2009) explained the engagement of first year undergraduate students in a British university with Facebook and the nature of their social networks before and after joining Facebook. The online survey was used for the collection of data. Students reported that they engaged with Facebook as the first instance as a means of looking for friendship making at university, and the same time to be in contact with friends and family. However, Madge et al. (2009) recommended that care must be taken not to overemphasize Facebook because students thought Facebook was used most importantly for social reasons, not for “formal teaching” purposes, although it was something used “informally” for learning purposes.

Wise, Skues and Williams (2011) reported Facebook (FB) usage among students who were enrolled in the first year programme of discipline of psychology and they found that majority of them had used FB accounts for an average of one hour for social connections. The students with conscientious personality were found to be using Facebook more and FB is more likely to operate as a distracting influence (Wise et al., 2011).

Liu, Kirschner and Karpinski (2017) explored the relationship between social networking sites use and academic performance by using the method of meta-analysis. Examination of the literature containing quantitative measurements of both social networking sites use and academic performance had produced a sample of 28 effect sizes for review. The results indicated a significant negative relationship between social networking sites use and academic performance. The negative correlation was found between social networking sites usage and GPA but positive relationship was found for social networking sites use and language test. Moreover, Liu et al. (2017) found that the social networking sites use relationship with GPA was strongly negative in female college students.

Toker and Batury (2019) investigated the factors which affected the college students' tendency to use Facebook for different educational purposes. They researched 120 participants using convenience sample in their online questionnaire. Descriptive statistics, multiple regressions and structural equation modeling techniques were utilized. It was found that GPA, personal use of Facebook for studying and socialization, autonomy psychological need and academic procrastination foresaw college students' willingness to use Facebook in their courses. GPA and personal use of Facebook for studying were found to be the most influential factors.

The research in Pakistan by Hussain and Saleem (2016) had not explained the predictability of the independent variables of educational motives and perceived consequences with the Facebook usage. They also did not research the difference which the variables of daily and weekly time patterns make in the variables of Facebook use, educational motives and perceived consequences. The studies by Madge et al. (2009) and Toker and Batury (2019) also did not explain the role of the daily and weekly time patterns and the difference which they make in the educational motives and perceived consequences resulting from Facebook use. The present study bridges these gaps.

Therefore, the objectives of the research are to explain the (1) predictability of educational motives and the perceived educational consequences for Facebook usage, (2) the interaction effects of daily and weekly time patterns for educational motives for Facebook use, and (3) the interaction effect of the daily and weekly time patterns on perceived academic consequences.

The study is important because it has implications for students themselves to check their daily and weekly time patterns for Facebook use. The study is also significant because it can discuss the mentorship role of the parents and teachers. The application of Facebook is easily available on smart phone and there are chances of more time spent for Facebook use. The study is redesigned with the help of following theoretical framework.

Theoretical Framework

This paper is based on the Uses and Gratification Theory and Displacement Theory. McQuail (2010) explained that the Uses and Gratification Theory deals with individual, group and societal level tasks and uses of media. Three main goals are addressed in this theory: 1. In what ways people on individual level gratify their desires and wants using mass media 2. Behind the media use what are the basic motives of people. 3. Identification of media use by individuals grading as positive and negative. Individuals are gratified through media according to their own needs, wants and requirements. Hussain and Saleem (2016) had found that university students were using Facebook more for diverse motives which also included the educational motives.

Displacement means substitution of one activity for another (Neuman, 1988). The home work might be negatively correlated with the amount of television usage which according to Neuman (1988) is the displacement of activities in physical and psychological proximity. In context of social networking sites like Facebook or Instagram, the time spent with them Facebook is unavailable for supposedly more desirable behaviour such as learning and based on this line of thinking, the time invested in Facebook must be traded off against time spent for learning (Marker et al, 2018).

Hypotheses and Research Questions

The uses and gratifications approach focuses attention on individuals in the mass communication process, respects intellect and ability of the media users, provides analysis of how they experience media content, differentiate active users of media from more passive users, studies the use of media as part of everyday social interaction and provides useful insight into adoption of new media (Baran & Davis, 2011) like Facebook. Educational motives for Facebook usage show the intellect and the ability of the students. In the light of this theory, following hypothesis is formulated.

H1: Educational motives for Facebook usage are likely to be positively related to Facebook usage.

Marker, Gnamb and Appel (2018) argued that the popularity of social networking sites among adolescents and young adults had raised concerns that the intensity of using these platforms might be associated with lower academic achievement and the empirical

findings on that issue were conclusive. Marker et al. (2018) in that context did their own research and presented four random-effect meta-analyses including 59 independent samples on the association between patterns of social networking sites use and grades. Marker et al. (2018) found small negative effect for general social networking sites use and for social networking sites use related to multitasking however, general social networking sites use was unrelated to the time spent for studying and no support for the time displacement hypothesis could be found in a meta-analytical mediation analysis. In addition to this social networking sites use for academic purposes exhibited a small positive association and the hypotheses with regard to cross-cultural differences were not supported. The opinion of university students also matters in that context. It is therefore aimed to take responses from university students how they think about the negative effects of Facebook. The present study hypothesizes that the perceived academic consequences resulting from Facebook usage is such activity which may be predict Facebook usage.

H2: *Perceived academic consequences resulting from Facebook usage are likely to predict Facebook usage.*

Further, the research questions were formulated to explore the interaction effect of the daily and weekly time patterns for difference in educational gratifications. The interaction effect of the daily and weekly time patterns was also explained for the perceived academic consequences related to Facebook usage among university students in Lahore.

RQ1. What difference do the interactions of daily and weekly time patterns make in educational motives (prospect) for Facebook use among university students in Lahore?

RQ2. What difference do the interactions of the daily and the weekly time patterns make in the variable of perceived academic consequences (curse) among university students in Lahore?

Method

This section comprised the sampling, instrumentation, conceptualization, operationalization and the measurement procedures.

Population and Sample

The population for the study was the university students in Lahore. By using convenience sampling technique 600 students were selected, 300 each from the public sector University of the Punjab and the private sector University of the Central Punjab. The students were selected from the departments of mass communication and the political sciences. The responses from 559 complete questionnaires were received with 93% response rate. The female students (59%) in the selected sample were more when compared with male students (41%). The university students were between the ages of 18 and 30 years.

Instrumentation

The detail about the list of the independent and dependent variables is as under:

Educational Motives for Facebook Usage

The educational motives for Facebook (FB) usage are conceptualized as the extent to which university students utilize FB for sharing websites for making assignments, for discussing matters of academic nature, for getting information, motivating one another for studying, for sharing news which is relevant to academics and finally to discuss ideas related to projects. Hussain and Saleem (2016) had extended the scale used by Shahnaz (2011) in context of Pakistan which had achieved the better internal consistency value of .877 which is above the recommended value of .7 (Pallant, 2007). Therefore, 6 items being used in the previous research (Shahnaz, 2011; Hussain and Saleem, 2016) were used which were, "I use Facebook to share web-links related to assignment," "To discuss academic matters with group members," "To find information related to studies" "To motivate friends to study hard," "To share academic related news" and "To share ideas on projects/courses."

Perceived Academic Consequences Resulting from Facebook Usage

The perceived academic consequences resulting from Facebook usage are conceptualized as the consequences resulting from Facebook usage in the opinion of students like it come to their observation that they spend more time for Facebook use than attending classes, feeling guilty when caught using Facebook during lecture, perceiving that Facebook is resulting into their poor academic grades, the cognition that the work/study/university/college getting worse and getting late for the submission of assignment because of Facebook usage on cell phone/smartphone in front of teacher (Hussain & Saleem, 2016). To measure the "perceived academic consequences resulting from Facebook usage", 6 items from previous research (Hussain & Saleem, 2016) were used which included: "I tend to spend more time on Facebook than attending classes" "I feel guilty when I am caught red-handed using Facebook during lecture" "I notice Facebook usage is one of the factors responsible for my poor academic grades" "I notice that my work/study/university/college getting worse because of the amount of time I spend on Facebook" "I notice that I get late sometimes for the submission of my assignment because of Facebook Usage" and "I cheat teacher and use Facebook in class." The researchers had not used the last item in their scale therefore the reliability of the extended scale was determined before finding the association.

Facebook Usage

The Facebook usage means using “like;” “comment;” “share;” features of Facebook, using Facebook for “chatting”, “status update”, “tagging”, “uploading” and “down loading”. The Facebook usage was proposed to be measured on 8 items: “I often use like feature,” “I often use comment feature,” “I often use share feature,” “I use Facebook chat,” “I use status update and wall post,” “I use Facebook for tagging,” “I use Facebook for uploading,” and “I use Facebook for downloading.”

Response Format

The response format for evaluating the responses for variables of educational motives, perceived academic consequences and Facebook usage was five point Likert type Scale with responses of, “1=Strongly Disagree;” “2=Disagree;” “3=Neutral;” “4=Agree;” and “5=Strongly Agree.”.

Weekly Time Patterns for Facebook Usage

The weekly time for Facebook usage was conceptualized as the extent to which university students in Lahore had responded about the use of Facebook in different intervals of the week. The weekly time assessment was measured on a 4-point ordinal scale with responses of, “1=twice in a week;” “2=once in a week;” “3=after two-day interval;” and “4=almost every day”, by asking the question from respondents, “In the running weekdays, how often do you happen to use Facebook?”

Daily Time Patterns for Facebook Usage

The daily time for Facebook usage was conceptualized as the extent to which university students in Lahore responded about the time for Facebook usage in minutes and hours. The daily time in minutes and hours was assessed by asking respondents to select the appropriate time for Facebook use on 5-point nominal scale, “1=less than thirty minutes;” “2=thirty to sixty minutes;” “3=two hours;” “4=more than two hours;” and “5=more than three hours;” by asking the question, “How often do you happen to use Facebook on an average day in minutes and hours?”.

Data collection

The cross-section survey method was used to collect data from respondents. The students were provided the 26-item self-report questionnaires and the pens for taking responses. The closed ended questions were utilized for taking responses. Keeping in view the ethical considerations, prior permission was taken from the head of the departments for the collection of data. There was no potential harm to the respondents as their names were not asked.

Procedures

By using SPSS version 21, the reliability of the scales was determined. The scales for perceived consequences for Facebook usage ($\alpha = .848$), over all Facebook usage ($\alpha = .819$) and the educational motives for Facebook usage ($\alpha = .812$) have shown better level of internal consistency. The scale for “Facebook Usage” which is a factor for overall Facebook usage, has revealed the good level of internal consistency among items ($\alpha = .781$).

For testing the hypotheses, the multiple regressions were applied to explain the model with the independent variables of educational motives and perceived academic consequences for the dependent variable of Facebook usage. Separately, to explain research questions, the Two-Way ANOVAs were applied. Tukey HSD tests were applied to explain the difference in groups for further analysis.

Findings and Discussion

The objectives of the research were to (1) explain the predictability of the independent variables of educational motives and perceived academic consequences with the dependent variable of Facebook usage; (2) the difference which the interaction of daily and weekly time patterns make in the variable of educational motives; (3) the difference which the interaction of daily and weekly time patterns make in the variable of perceived academic consequences resulting from Facebook usage among university students in Lahore.

Table 2

Model Summary for Educational Motives and Perceived Educational Consequences as Predictors of Facebook Usage (n = 559)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.478 ^a	.229	.226	7.82771	.229	82.544	2	556	.000

a. Predictors: (Constant), Academic Consequences, Educational Motives

b. Dependent Variable: Facebook Usage

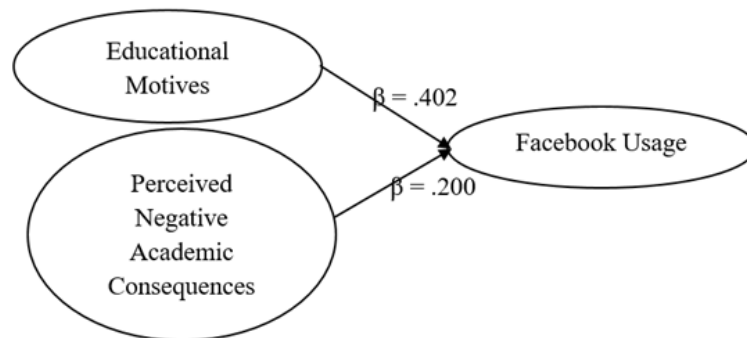


Figure 1. *Motives and Negative Academic Consequences resulting from Facebook Usage among University Students*

The variance explained in the dependent variable of Facebook usage by the model which includes the independent variables of motives for Facebook usage and the perceived consequences is 22.9 % ($R^2 = .229$).

Table 3

Educational Motives and Perceived Consequences as Predictors of Facebook Usage (n = 559)

Independent Variables	B	t	P	T	VIF
Educational Motives	.402	10.637	.000	.971	1.030
Perceived Consequences	.200	5.293	.000	.971	1.030

Dependent Variable: Facebook Usage

Both the variables of educational motives ($\beta = .402$) and the perceived consequences ($\beta = .200$) are making significant unique contribution to the prediction of Facebook usage at $p < .05$. However, the variable of educational motives for Facebook usage makes the unique contribution. This finding is consistent with the work of Toker and Baturay (2019) who provided an opportunity to make a transition from informal to formal education by suggesting certain factors affecting students' motivations to use Facebook in Education. In their study, a majority of students thought that Facebook was a good tool for communication and collaboration. The present study also reflects the same finding because the educational motives make the unique contribution for Facebook usage among university students in Lahore. Medget et al. (2009) had indicated that Facebook was used for more informal learning purposes and not perceived as formal learning and teaching medium. However, the current study argues that Facebook can be used for formal learning among teachers and students.

Table 4

Difference in Demographics for FB Usage, Educational Motives and Perceived Consequences among University Students (n = 559)

Dependent Variables	Independent Variables	Df	Mean Square	F	P	η^2
Educational Motives	daily time	4	21.813	.953	.433	.007
	weekly time	3	100.061	4.373	.005	.024
	daily and weekly time	10	48.966	2.140	.020	.038
Academic Consequences	daily time	4	142.987	4.522	.001	.032
	weekly time	3	17.014	.538	.656	.003
	daily and weekly time	10	56.144	1.776	.062	.032

The interaction effect of daily and weekly time on the educational motives for Facebook usage is statistically significant, $F(10, 541) = 2.140$, $p = .020$, with small effect ($\eta^2 = .038$). There is a significant difference for weekly time consumption for Facebook usage, $F(10, 541) = 4.373$, $p = .005$. The daily time in minutes and hours for the educational motives have not make any difference which implies that Facebook is useful for those students who use it for only once in a week. The interaction effect of these two variables is significant, $F(10, 541) = 1.776$, $p = .062$, with small effect ($\eta^2 = .032$).

Table 5

Post Hoc Comparisons for the Weekly Time Commitment for Educational Motives (n = 559)

Weekly Time Commitment for Facebook Usage	N	Subset	
		1	2
After Two days' Interval	91	18.7033	
Almost Every Day	382	19.3325	19.3325
Twice in a Week	63	19.4603	19.4603
Once in a Week	23		21.3913

Post-hoc comparisons using the Tukey HSD test indicated that the mean score for the educational gratifications from Facebook for once in a week ($M=21.391$) is higher than daily usage ($M=19.332$) for the educational motives among university students.

It was predicted at the beginning of the study that the perceived negative educational consequences for Facebook usage will more likely to predict Facebook usage but the results are against our expectation because students have used Facebook actively for the educational motives. The independent variable of motives made a unique contribution in this model ($\beta = .4$). The students are using Facebook for sharing ideas on projects and courses, sharing web links related to assignments, discussing academic matters with group members, finding information related to studies and motivating their friends for studying. This result shows the intellectual ability of the students as the active users of Facebook.

The study has contributed to uses and gratifications theory by explaining the intellectual ability of the students who have used Facebook for the educational gratifications. At the same time the study adds to displacement theory by explaining interaction effect of daily versus weekly time commitment on the educational motives versus perceived academic consequence among students. There is conflict in our findings related to the daily and the weekly time commitment for Facebook usage and their impact on the educational gratifications versus the perceived negative academic consequences among students. Male students are using Facebook more than the female students once in a week and twice in a week which means that there is a higher probability of Facebook usage on weekends like on Saturdays and Sundays.

Students have perceived the educational consequences resulting from Facebook usage like their work/study/university or college is disturbed because of Facebook usage. Sometimes, they get late for the submission of their educational assignments. They are of the opinion that they have happened to compromise the class hours at university because of Facebook usage. They also found to be using Facebook during lectures in the classroom even in front of teacher and they have even perceived that the Facebook is one among the factors responsible for their poor academic results.

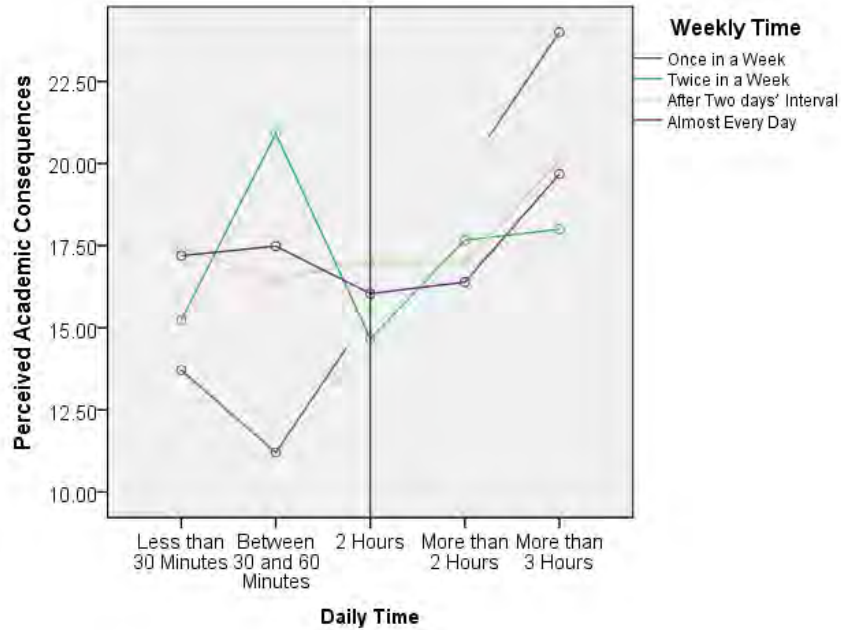


Figure 2. *Interaction Effect of Daily and Weekly Time Patterns for Increase in Responses of Perceived Academic Consequences resulting from Facebook Usage*

The Facebook is a useful tool for grooming the intellectual ability of the students but its usage for more than 2 hours on daily or weekly basis is harmful for the academic performance of university students in metropolitan Lahore city of Pakistan. It is therefore recommended to students to check their Facebook usage after two hours so that they can use it effectively. The university students are of the view that they are using the Facebook for educational motives occasionally therefore teachers should utilize the Facebook formally on weekends.

Conclusion

Both the variables of educational motives and the perceived consequences are making significant unique contribution to the prediction of Facebook usage. However, the variable of educational motives for Facebook usage makes the unique contribution. Students have perceived the educational consequences resulting from Facebook usage like their work/study/university or college is disturbed because of Facebook usage. Sometimes, they get late for the submission of their educational assignments. Although, the independent variable of motives for Facebook usage makes the unique contribution in the model but there are small interaction effects of daily and weekly time consumption on the educational motives and the perceived academic consequences for Facebook usage.

The students after two hours of usage on daily basis or in different intervals of the week perceive that the Facebook usage has resulted into the negative academic consequences. The on campus university students who are using Facebook less frequently are of view that Facebook is a useful tool for educational purposes.

Recommendations

The research findings recommended checking the daily use for Facebook which should not exceed two hours. If this recommended time is not checked then it will displace the active educational motives for Facebook usage among university students. It is recommended to check the daily use for Facebook which should not exceed two hours. If this recommended time is not checked then it will displace the active educational motives for Facebook usage among university students. The teachers should act their mentorship role and utilize the platform of Facebook for educational purposes because the students are the rational human beings and can make independent choices. The harms of Facebook can be minimized if students remain committed to their educational motives because a variety of Facebook content divert their attention towards other areas and interests. Finally, students need to revisit their time patterns to minimize Facebook use by reviewing their daily and weekly time schedules besides concentrating on reading books beyond the discourse of Facebook to become critical thinkers instead of merely following the trendy discussions. The future researchers should measure the daily time in minutes and hours and also the weekly time to explain the academic performance of students.

Limitations

The variable of age is not considered for our study which can better paint the picture of Facebook usage for educational motives versus the perceived academic consequences. The variable of age is also not interacted with the daily time for Facebook usage.

Ethical Considerations

There was no conflict of interest of the researchers. No funding was used to conduct this research. Keeping in view the ethical considerations, prior permission was taken from the head of the departments of the universities for data collection. There was no potential harm to the respondents as their names were not asked.

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