A Real-Time Observation Approach for Assessing the Impact of Social Media on Students' Academic Performance

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The increase in the use of social media among students has led to investigation on its effect on academic performance. Existing studies conducted on this subject matter showed two contradictory opinions among researchers. While some researchers agreed that social media has negative impact on the students' academic performance, others concluded that it has positive impact on the students' academic performance. However, these studies relied on surveys carried out using questionnaires which provide approximate estimates. In this study, a real-time observation approach devoid from the use of questionnaire was proposed. In addition, a time management equation was developed to further evaluate the impact of social media on the students' academic performance. The results from the study showed that the use of social media has significant negative effect on the academic performance of the students.

Keywords: academic performance, real-time, social media, social networking sites, students

The expansion in technology and Internet connectivity has led to increase in the use of social media. It is a common sight nowadays to see people chatting in sensitive and highly organized places such as churches, mosques and lecture halls, among others (Asema, Okpanachi, & Edegoh, 2013). Some are so carried away that even as they are walking along the roads, highways inclusive, they are chatting. The ease of use and low cost of smartphones have complicated the situation as youths now browse, send and receive messages on the go which has enhanced the use of social media. Attention has now been shifted from physical friends to virtual friends found on the social media. Furthermore, the study and writing skills of students have been affected negatively through the use of social media (Waqas, Afzal, Zaman, & Sabir, 2016).

This phenomenon according to Asema et al. (2013) has become a source of worry to many researchers who believe in knowledge and skills acquisition.

Nowadays, the mode of communication and interaction between people has changed as a result of Internet and its platform which consist of several developed technologies (Adamu, Bashir, & Ayuba, 2018). According to Adamu et al. (2018), one of the developed technologies in communication and sharing of information is the social media. Its development has penetrated almost all aspects of our society and has contributed positively and/ or negatively in communication, teaching, learning and research. Social media seems very interesting and easy to use as it is being accessed through smartphones and mobile applications, hence the need to critically study its impact on the academic performance of students using an approach devoid of the use of questionnaire.

Statement of the Problem

Existing studies on the influence of social media on the academic performance of students relied on responses obtained from questionnaires. Some of the respondents may exhibit bias/dishonesty when filing the items in the questionnaire. In addition, some of the items on the questionnaire may be ambiguous to the respondents. This may give room for wrong responses. Thus, results from these studies only provide approximate estimates, hence the need for a critical investigation on this subject matter using an approach different from the traditional use of questionnaires.

Objectives of the Study

The objectives of this study are to:

(1) Determine the level of influence of social media on the academic performance of students using an approach that is different from the traditional use of questionnaire; and

(2) Develop a time management equation to further evaluate the impact of social media on the academic performance of students.

LITERATURE REVIEW

Researchers have conducted studies to ascertain the influence of social media on users in general and students' academic performance in particular using questionnaires. For example, Kolan and Dzandza (2018) conducted a study on the impact of social media

on the undergraduate academic performance of students in University of Ghana. The questionnaire for the data collection was administered to the first twenty-five (25) students within each cluster (hall) who were met in their rooms in each selected hall in order to give equal representation to all the clusters (halls) and also to arrive at the desired total sample size of two hundred (200) participants. Their findings revealed that despite the benefits of social media usage, there is to some extent addition and distraction of attention caused by the use of social media which could have serious negative consequences on the academic life of students. Similarly, the finding of Oye (2012) showed that most of the younger students use social networking sites mainly for socializing activities, rather than for academic purposes. He further observed that most of the students do feel that social networking sites have more positive impact on their academic performance. Unfortunately, empirical study by Oye (2012) has proved that this students' perception on the use of social media was wrong.

Furthermore, it was highlighted in the finding of Omachonu and Akanya (2019) that 67.75% and 25.75% of their respondents spend 1 to 3 hours and 4 to 6 hours respectively on social media which displaces their study time with negative effect on their academic achievement. According to Owosu-Acheaw and Larson (2015), most of their respondents use social media sites to chat rather than for academic purposes which have affected their academic performance negatively. The study conducted by Adebiyi, Okuboyejo, Akinbode, Agboola and Oni (2015) revealed negative effect of online social networking services on students' academic performance. Also, the research work of Paul, Baker and Cochran (2012) statistically showed a significant negative relationship between time spent on online social networking services and academic performance, while the study of Tariq, Mehboob, Khan and Ullah (2012) concluded that students' addition to social networking sites have very bad impact on their education.

According to the results of Talaue, AlSaad, AlRushaidan, AlHugail and AlFahhad (2018), 38.4% of their respondents, who are students strongly agreed that social media has negative effect on their academic performance. They (the respondents) posit that sometimes they forgot to do their assignments or study their books as a result of long stay on the social media. However, 41.6% said they do not have such problems, while 20.0% answered neutral/undecided. In a related development, Adamu et al. (2018) stated that

academic performance nowadays is influenced by several factors, among which is the use of social media. Similarly, the finding of Ndaku (2013) showed that the use of social media among students has affected their study time, increase the use of poor grammar and wrong spellings when communicating and/or chatting on social media as well as diverting their attention from their academic studies.

In a study, Abdulahi, Samadi and Gharleghi (2014) examined the effects of social networking sites on the students of Asia Pacific University, Malaysia using survey method. Using a random sampling method, questionnaires were distributed among the students and a total of 152 were collected for analysis. The results from the study showed a negative relationship between dependent and independent variables, hence the null hypothesis that there is no relationship between students' performance and social networking usage was rejected. Furthermore, the study of Waqas et al. (2016) and Shana (2012) showed that 67% and 74% of their respondents use social media respectively for non-academic purposes which has negatively affected their academic performance. Similarly, a survey conducted by Asema et al. (2013) revealed that exposure of undergraduate students of Kogi State University, Nigeria to social media has negative effect on their academic performance.

It was also found that the use of social media affects the students' time management for prep/homework. For example, long stay on the social media for non-academic purposes leaves the students with little time for study which has negative consequences on their academic performances. Many studies have been carried out on study time behavior (time management) and students' academic achievement. Some of these studies include that of Adeyemo (2005), Gbore (2006), Kunal (2008), Alam (2009), Faisal, Abdulla, Mohammad and Nabil (2014) and Okoye and Onokpaunu (2020). They all agreed that study time attitude (time management) affects students' academic performance. Specifically, Van' Blerkom (2011) and Ukpong and George (2013) stated that for optimum grades in academics, students are expected to spend two (2) to three (3) hours outside class studying and doing homework for every one (1) hour spent in the class. However, in all these findings, there was no mathematical formula to evaluate the effect of social media on the students' time management and its impact on the academic performance of the students, hence the need to develop one.

On the other hand, the use of social media is not all that bad as it has its positive outcomes, hence the popular axiom that social media has its layers of good and bad. According to Kolan and Dzandza (2018), the nature of social media is that of a useful servant as well as a dangerous master. From the study of Alwagait, Shahzad and Alim (2015), it was found that social media usage on weekly basis displayed a positive skew. In other words, where students do not use social media excessively, it does not have adverse effect on their academic performance. A similar study by Abousaber and Oueder (2018) revealed that online social media has improved the communication between the faculty members and students which facilitated the communication of the correct information and improve understanding and the development of the ideas and the courses. The study of Ainin, Naqshbandi, Mogbavvemi and Jaafar (2015) found a positive relationship between social media usage and students' academic performance. The optimal use of social media by students to promote knowledge exchange/sharing according to Harrath and Alobaidy (2016) enhances their academic performance. In the work of Masiu and Chukwuere (2018), it was found that smartphone usage has positive effect on students' academic results.

Analysis of the influence of social media participation on academic performance of students using National Distance Education University, Spain was done by Casal (2019). The results of the study showed that the students who participated in a social media-based activity have better academic performance than those who did not carry out any activity or who took part in a more traditional learning activity. The pattern of social media usage among medical students in Eastern part of India was investigated by Lahiry, Choudhury, Chatterjee and Hazra (2019). The investigation was based on online survey tool called Google forms, taken by 650 medical students at a tertiary medical center in Kolkata. The results showed that social media usage for academic purposes was high among medical and paramedical students and that they (students) benefit from social networking.

A study which adopted descriptive survey research design to investigate social media usage among undergraduates with regards to students' studies was carried out by Subair, Adebola and Yahya (2019). For the study, students of Obafemi Awolowo University, Ile-Ife, Nigeria were used as respondents. A total of 850 students were selected using random and convenience sampling techniques. The results showed that the social

media platforms were used mainly for socialization, information, and academic purposes. An attempt to examine the usefulness of social media and mobile devices in transferring the resources and interaction with academicians in higher educational institutions was presented by Ansari and Khan (2020). Their study was based on the survey of 360 students of a university in Eastern India. The study revealed that online social media used for collaborative learning had a significant impact on interactivity with peers, teachers and online knowledge sharing behavior, which has a significant positive impact on students' academic performance.

In his article, Arslan (2018) presented the results of a study conducted on 394 undergraduate students to analyze the relationship between the social media usage and the students' academic performance. The relationship was studied using correlational analysis. The results revealed weak but positive relationship between social media usage and academic performance. In a related development, Fori (2016) studied the effect of social networking sites on the academic performance of engineering students of the University of Maiduguri, Nigeria. Data obtained from 222 students using questionnaires were used for the analysis. The result showed that social networks have no effect on the students' academic performance.

From the literature, two contradictory opinions among researchers on the subject matter exist. One common parameter among them is the use of questionnaires. To the best of our knowledge, there is no study on the effect of social media on the academic performance of students without the use of questionnaires. This is where our proposed method, the real-time observation approach makes the difference. In addition, a time management equation was developed to further evaluate the effect of social media on the students' academic performance. This novel approach will validate or reject the previous works on this subject matter.

METHODS

The Real-Time Observation Method

We present in figure 1 the simplified diagram of the proposed Real-Time Observation Method.
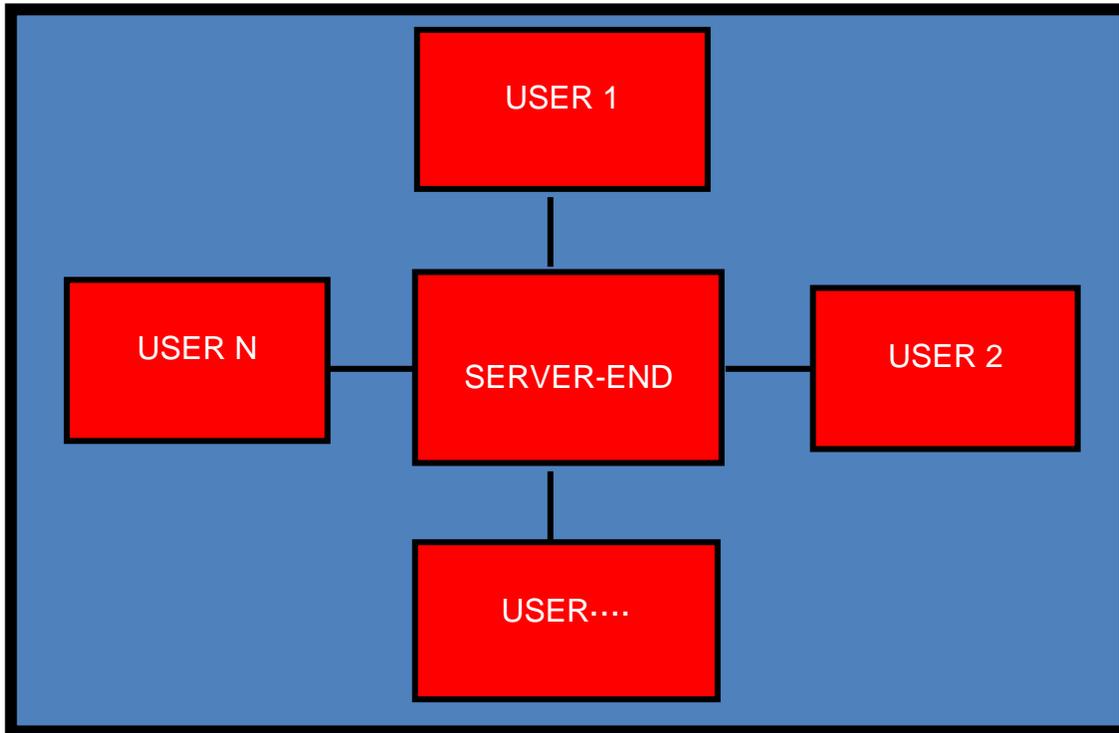
Figure1. The simplified diagram of the Real-Time Observation Method

User 1, User 2, …, User N

These are the students using the Institution's Internet services with the air tickets (usernames and passwords) assigned to them for the purpose of this study.

Server-End

The server-end is used to track down the social media site(s) visited by the participants and the time spent.

The Research Design

Population of the Study

The population of the study is all 100 level students in the School of Science of the Federal College of Education, Abeokuta, Nigeria. The School of Science has seven academic Departments namely: Biology, Chemistry, Computer Science, Physics, Mathematics, Integrated Science and Physical and Health Education with a population of 554 students.

The choice of School of Science is based on their high level of performance after the release of the first semester results of 2017/2018 academic session when compared with the other four Schools.

The College Letter Grading System and Class of Grades

The Federal College of Education, Abeokuta, Nigeria operates the letter grading system and class of grades shown in tables 1 and 2 respectively. The letter grading system corresponds to a range of scores with its associated point (see table 1), while the class of grade corresponds to a range of Cumulative Grade Point Average (CGPA) as shown in table 2.

Table 1
The Letter Grading System

Mark (Score)	Letter Grade	Point
70 – 100	A	5
60 – 69	B	4
50 – 59	C	3
45 – 49	D	2
40 – 44	E	1
0 – 39	F	0

Table 2
Class of Grades

CGPA	Class of Grade
4.50 – 5.00	Distinction
3.50 – 4.49	Credit
2.40 – 3.49	Merit
1.50 – 2.39	Pass
1.00 – 1.49	Low Pass
0.00 – 0.99	Fail

Preliminary Study

A preliminary study was carried out to identify the factors that could inhibit the use of social media among the students. From the preliminary study, it was identified that money to buy data that will make them (students) be online was the only major limitation to their use of social media. This confirmed the finding of Masiu and Chukwuere (2018) that the high cost of data is a determining factor on how students will use their smartphones for Internet-related activities. This implies that if given free access to Internet, their usage of social media will tremendously increase. Therefore, the research design was carefully done to introduce impediment on the usage of social media on the Control Group and no impediment on the Experimental Group as explained below.

The Sample of the Study

From the first semester result of 2017/2018 session, eighty (80) students representing 14.44% of the population were purposively selected for this study. The purposive selection is to enable us (the researchers) select only students that are resident in the College hostel for maximum utilization of the College Internet facility which operates on 24/7 uninterrupted except in very few cases of downtime. Also the purposive selection was chosen to enable the researchers have a sample population mixed with high performing students and those of average performing students. Thus, the breakdown of the eighty (80) students are: twenty-two (22) students with a CGPA of Distinction, thirty-nine (39) with a CGPA of Credit and nineteen (19) with a CGPA of Merit.

For the purpose of this study, two Groups, Control Group and Experimental Group were created and students were randomly assigned to the groups from the eighty (80) students. Thus, each group has forty (40) students randomly distributed as follows:

(a) Control Group has fourteen (14) Distinction, twenty-two (22) Credit and four (4) Merit.

(b) Experimental Group has eight (8) Distinction, seventeen (17) Credit and fifteen (15) Merit.

Furthermore, students in Control Group were given tickets that enable them access the College Internet facility one hour per day except Saturday and Sunday. Thereafter they have to return to ICT Centre to collect new ticket for each day of the week to enable them utilize the free one hour Internet per day throughout the second semester of 2017/2018 academic session. This was done to limit the level of usage of social media.

However, students in Experimental Group were given tickets that give them unhindered access to the College Internet facility twenty-four hours per day for the entire second semester of 2017/2018 session, Saturdays and Sundays inclusive. This was done to remove any limitation on the usage of social media.

At the end of the second semester, we collected relevant data to the study such as the time spent on the social media for non-academic purposes and the second semester results among others for analyses with the consent of the participants. The detail analyses are presented in Section 4.

RESULTS

Gender Analysis of the Participants

The gender analysis of the participants is presented in table 3.

Table 3
Gender Analysis of the Participants

Gender	No. of Participants	Percentage of Participants
Male	32	40.00%
Female	48	60.00%
Total	80	100.00%

From table 3, the percentage of the participants that are male is 40.00%, while the percentage of the participants that are female is 60.00%. This implies that the ratio of male participants to female participants is 2:3 which is gender-centric.

Performance Analysis of Control Group

The average time spent daily on social media for each student in the Control Group was computed. Thereafter, the Group average time was calculated. Similarly, the CGPAs and the corresponding class of grades for each of the students for the second semester of 2017/2018 academic session were obtained for analyses. This is summarized in table 4.

Table 4
Performance Analysis of Control Group

Grade	No. of Students	Percentage	Group Average Time	Group Average CGPA
Distinction	13	32.50%		
Credit	20	50.00%		
Merit	4	10.00%	54 minutes	4.15
Pass	3	7.50%		
Low Pass	0	0.00%		
Total	40	100.00%		

From table 4, the Control Group had thirteen (13) students with Distinction grade, twenty (20) with Credit grade, four (4) with Merit grade, three (3) with Pass grade and a Group average CGPA of 4.15, which is a Credit grade. The Group average daily time spent on social media is 54 minutes (0.9 hour).

Performance Analysis of Experimental Group

In the same vein, the average time spent daily on social media for each student in the Experimental Group was computed. Again, the Group average time was calculated. Similarly, the CGPAs and the corresponding class of grades for each of the students for

the second semester of 2017/2018 academic session were obtained for analyses. This is summarized in table 5.

Table 5
Performance Analysis of Experimental Group

Grade	No. of Students	Percentage	Group Average Time	Group Average CGPA
Distinction	0	0.00%		
Credit	10	25.00%		
Merit	24	60.00%	262 minutes	2.98
Pass	6	15.00%		
Low Pass	0	0.00%		
Total	40	100.00%		

From table 5, the Experimental Group had zero (0) students with Distinction grade, ten (10) with Credit grade, twenty-four (24) with Merit grade, six (6) with Pass and a Group average CGPA of 2.98, which is Merit grade. The Group average daily time spent on social media is 262 minutes (4 hours, 22 minutes or approximately 4.4 hours).

Time Management Equation (Model) for Prep/Homework

The key to being a successful student depends largely on how the student manages his/her time. In this study, time management analysis is to enable us critically examine the participants' available time for prep/homework and how the use of social media encroached into it. In this work, available prep or homework time refers to the available time in which the student spends in studying the lecture notes/course materials, supplementary reading and other academic activities such as laboratory or field works without the supervision of the lecturer(s). According to Van' Blerkom (2011) and Ukpong and George (2013), students are expected to spend three hours outside class studying and doing homework for every hour spent in the class.

The Model Development Process

We examined both first and second semesters workloads, that is, credit unit/hour and the associated timetable and found no significant difference since ten (10) hours are available for the participants to manage on their own after their daily lectures for both semesters. This is without prejudice to the time spent for resting, visits, eating, sleeping and other non-academic purposes excluding social media. Thus, participants are expected to retain or surpass the grades they have in first semester during the second semester.

Mathematically, if we take X_1, X_2, ...,Xn to represent the time allocated for studying each course lecture notes/materials, solving self-test questions, solving past questions, preparing for test/exam, tackle difficult assignment, do laboratory/field work, etc, and Y to represent the Group Average Time spent on social media, then for:

(a) First Semester

$$X_1+X_2+...+Xn+Y = 10hrs.............................(1)$$

From the results of the preliminary study, the Group Average Time spent on the social media is negligible, hence Y=0. Thus, equation (1) becomes.

$$X_1+X_2+...+Xn = 10hrs..............................(2)$$

(b) Control Group

$$X_1+X_2+...+Xn+Y = 10hrs.............…...............(3)$$

From table 4, the Group Average Time spent on social media is 0.9hr, hence substituting for Y makes equation (3) to become:

$$X_1+X_2+...+Xn+0.9hr = 10hrs.....................(4)$$

By simplifying equation (4), we have:

$$X_1+X_2+...+Xn = 9.1hrs.............................(5)$$

(c) Experimental Group

$$X_1+X_2+...+Xn+Y = 10hrs.............…..............(6)$$

From table 5, the Group Average Time spent on social media is 4.4hrs, hence substituting for Y makes equation (6) to become:

$$X_1+X_2+...+Xn+4.4hrs = 10hrs...................…....(7)$$

By simplifying equation (7), we have:

$$X_1+X_2+...+Xn =5.6hrs................…...................(8)$$

Equations (2), (5) and (8) are the general models for time management for first semester, control group and experimental group respectively. In this study, there are, in most cases three (3) variables present in the equation for daily time management. Any variable not present takes the value of zero (0) for that day. If we assume that equal time is allocated to each of three (3) variables, then it implies that $X_1=X_2=X_3$.

Arising from the above, equations (2), (5) and (8) can be reduced to equations (9), (10) and (11) which calculate the available time left for prep/homework for first semester, control group and experimental group respectively as follows:

(a) First Semester available time for Prep/Homework

If $X_1 = X_2 = X_3$, then it follows that $3X_1 = 10$hrs. Thus,

$X_1 = 3.3$hrs………………………………….(9)

(b) Control Group available time for Prep/Homework

If $X_1 = X_2 = X_3$, then it follows that $3X_1 = 9.1$ hours. Thus,

$X_1 = 3.03$hrs……………………………….(10)

(c) Experimental Group available time for Prep/Homework

If $X_1 = X_2 = X_3$, then it follows that $3X_1 = 5.6$hrs. Thus,

$X_1 = 1.87$hrs……………………………….(11)

From equations (9) and (10), it shows that the students/participants in these groups have more than 3 hours daily for prep/homework. This satisfied the condition stated by Van' Blerkom (2011) and Ukpong and George (2013) for a student to do well in his/her study. However, equation (11) shows that students/participants in this group have 1.87 hours daily for prep/homework which is far less than the condition stated by Van' Blerkom (2011) and Ukpong and George (2013) for a student to do well in his/her study.

DISCUSSION

Effects of Social Media usage on Academic Performance of the Participants

The effects of social media usage on academic performance of the participants will be discussed by comparing the performance of the participants within groups and between groups using descriptive statistics. Furthermore, inferential statistics was also used to further compare the impact of social media on the academic performance of the participants.

Comparative Performance Analysis within Group

We compared the performance of the participants before and after treatment. The before treatment is the analysis of the performance of the participants before the commencement of the experiment by using the first semester results, while after treatment is the analysis of the performance of the participants after the conduct of the study using the second semester results.

(a) Comparative Performance Analysis within the Control Group

The comparative performance analysis of the Control Group before and after treatment is summarized in table 6.

Table 6
Comparative Performance Analysis of Control Group

Grade	Before Treatment (first semester)	After Treatment (second semester)	Percentage Performance Analysis
Distinction	14	13	-1 (-7%)
Credit	22	20	-2 (-9%)
Merit	4	4	0 (0%)
Pass	0	3	-
Low Pass	0	0	-
Total	40	40	-

From table 6, it shows that before the conduct of the study, the Control Group had fourteen (14) students with Distinction grade, twenty-two (22) with Credit grade and four (4) with Merit grade. However, after the conduct of the study, the Control Group had thirteen (13) students with Distinction grade, twenty (20) with Credit grade, four (4) with Merit grade and three (3) with Pass grade. From the foregoing, it shows that the Control Group lost one (1) student in Distinction grade and two (2) students in Credit grade.

From the group average daily time of 54 minutes (0.9 hour) per day exposure to the use of social media as seen in table 4, the participants' available time of 3.03 hours daily for prep/homework as depicted in equation (10) and the comparative performance analysis shown in table 6, we conclude that the participants in the Control Group were moderately exposed to the use of social media for non-academic purposes throughout the second semester hence their performances were not adversely affected.

(b) Comparative Performance Analysis within the Experimental Group

The performance analysis of the Experimental Group before and after treatment is summarized in table 7.

Table 7
Comparative Performance Analysis of Experimental Group

Grade	Before Treatment (first semester)	After Treatment (second semester)	Percentage Performance Analysis
Distinction	8	0	-8 (-100%)
Credit	17	10	-7 (-41%)
Merit	15	24	+9 (+60%)
Pass	0	6	-
Low Pass	0	0	-
Total	40	40	-

From table 7, it shows that before the conduct of the study, the Experimental Group had eight (8) students with Distinction grade, seventeen (17) with Credit grade and fifteen (15) with Merit grade. However, after the conduct of the study, the Experimental Group had zero (0) students with Distinction grade, ten (10) with Credit grade, twenty-four (24) with Merit grade and six (6) with Pass. From the foregoing, it shows that the Experimental Group lost eight (8) students in Distinction grade and seven (7) students in Credit grade.

From the group average daily time of 262 minutes (4.4 hours) per day exposure to the use of social media as seen in table 5, the participants' available time of 1.87 hours daily for prep/homework as depicted in equation (11) and the comparative performance analysis shown in table 7, we conclude that the participants in the Experimental Group were heavily exposed to the use of social media for non-academic purposes throughout the second semester hence their performances were adversely affected.

Comparative Performance Analysis between Control and Experimental Groups

We compared the participants' performances between Control Group and Experimental Group at the end of the study using their second semester results. The result of the comparison is presented in figures 2 and 3.
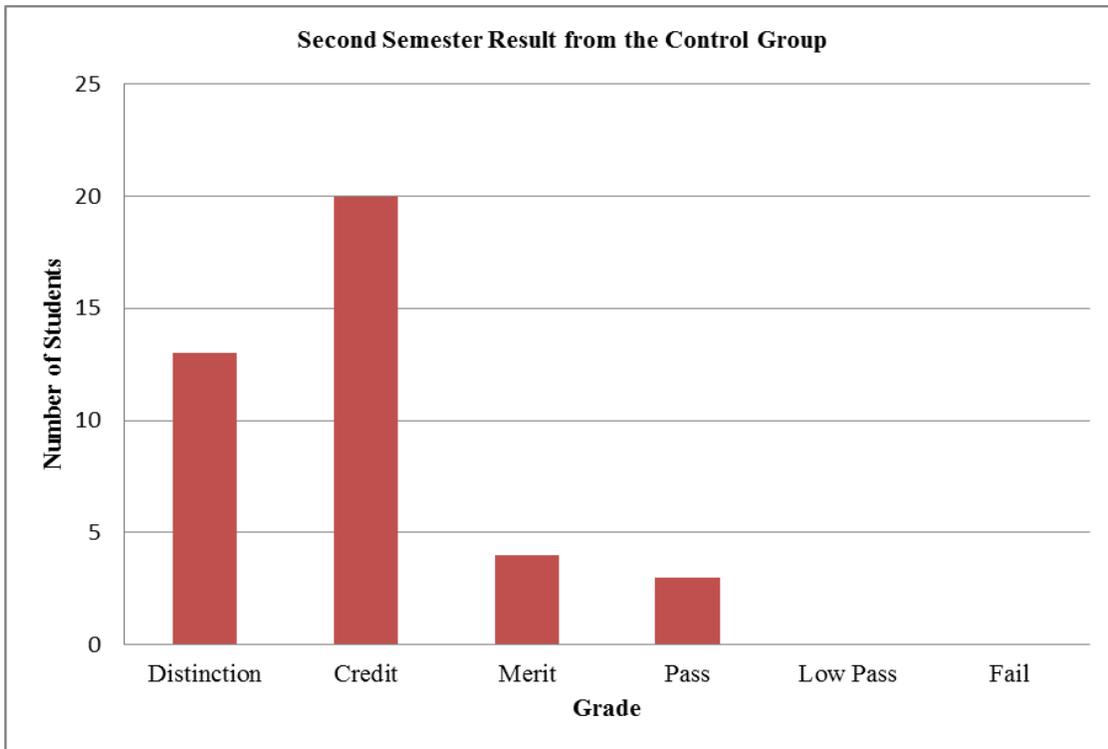
Second Semester Result from the Control Group

Figure 2. Second Semester Performance of Control Group

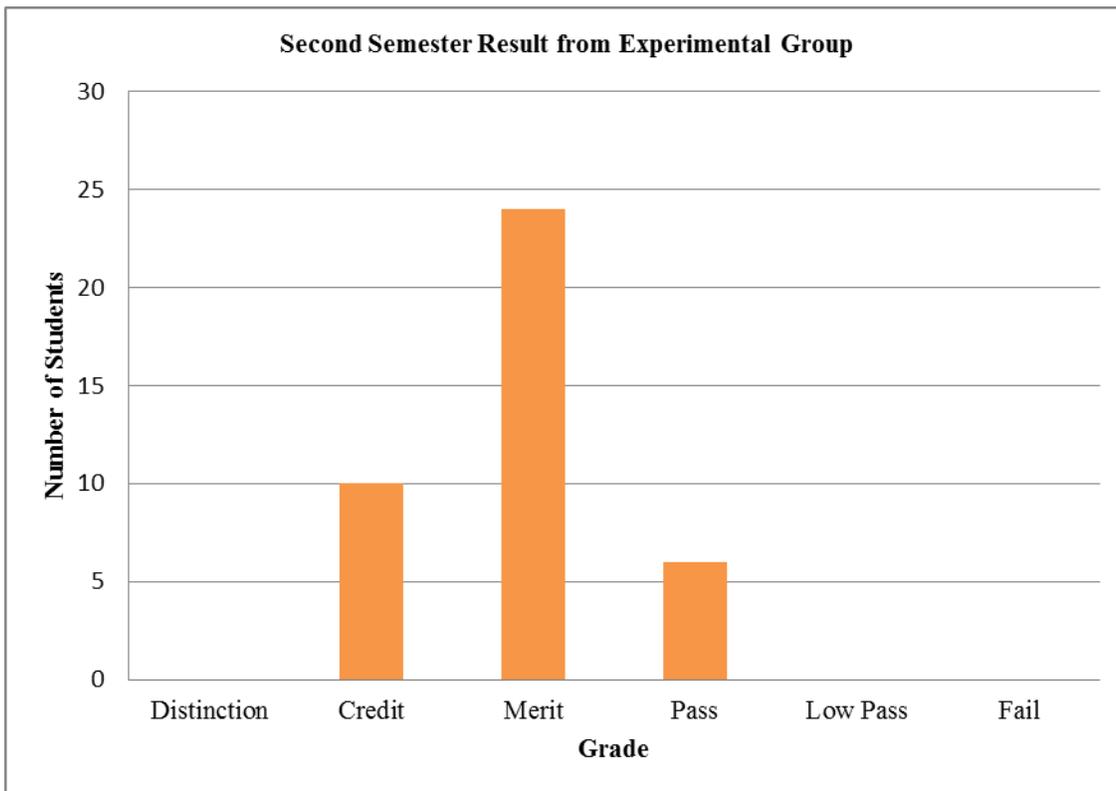**Second Semester Result from Experimental Group**

Figure 3. Second Semester Performance of Experimental Group

The findings showed that students who spent less time on the social media as depicted by Control Group in figure 2 have better CGPAs, while those who spent most of

their time on social media as depicted by Experimental Group in figure 3 have their CGPA adversely affected. For example, participants in Control Group where the group average daily time spent on social media was 54 minutes (0.9 hour) had thirteen (13) students with Distinction grade. On the contrary, participants in Experimental Group where the group average daily time spent on social media was 262 minutes (4.4 hours) have no Distinction grade. Similarly, the number of students with Credit in Control Group is twenty (20), while that of Experimental Group is ten (10). Thus, excessive use of social media for non-academic purposes has very serious negative influence on the Academic Performance of the students.

Effect of Social Media on Participants' Academic Performance using Inferential Statistics

Investigation on the relationship between the average daily time spent on the social media and the CGPA of the participants was carried out using the Pearson Product Moment Correlation analysis for both the Control Group and the Experimental Group.

(a) Effect of Social Media on Participants in the Control Group

The analysis of time spent on social media and its effect on academic performance of participants in the Control Group was carried out using the Pearson Product Moment Correlation. The result of the analysis is presented in table 8.

Table 8
Pearson Correlation Coefficient of Control Group

		AVG_TIME	CGPA
AVG_TIME Correlation	Pearson	1.000	-0.279
		-	0.081
	Sig. (2-tailed) N	40	40
CGPA Correlation	Pearson	-0.279	1.000
		0.081	-
	Sig. (2-tailed) N	40	40

(b) Effect of Social Media on Participants in the Experimental Group

The analysis of time spent on social media and its effect on academic performance of participants in the Experimental Group was carried out using the Pearson Product Moment Correlation. The result of the analysis is presented in table 9.

Table 9
Pearson Correlation Coefficient of Experimental Group

		AVG_TIME	CGPA
AVG_TIME Correlation	Pearson	1.000	-0.647
		-	0.000
	Sig. (2-tailed) N	40	40
CGPA Correlation	Pearson	-0.647	1.000
		0.000	-
	Sig. (2-tailed) N	40	40

The correlation coefficient of the Control Group is -0.279 (see table 8), while that of Experimental Group is -0.647, (see table 9). This shows that there exists a negative relationship between time spent on the social media and students' academic performance. However, applying the interpretation of correlation coefficient by Best and Kaha (1989), one can say that the effect of using social media for the Control Group is negligible, which implies that moderate use of social media has no serious negative impact on the participants' academic performance. On the contrary, that of the Experimental Group is high. This implies that excessive use of social media for non-academic purposes has very serious negative impact on the participants' academic performance.

RECOMMENDATIONS, CONCLUSION AND FUTURE WORK

Recommendations

From the results of the findings, the following recommendations were made.

(1) The students should be taught through orientation programmes, seminars and workshops about the negative impact of excessive use of social media on their academic performance.

(2) There should be a deliberate counseling policy by various educational institutions on students' exposure to the use of social media.

(3) Educational institutions should find a way of promoting social media as a tool not only for communication and entertainment but also for learning.

Conclusion

In summary, the study found that:

(i) Using social media moderately for non-academic purposes has very little (negligible) negative impact on the students' academic performance.

(ii) Using social media excessively for non-academic purposes has very serious adverse effect on the students' academic performance.

In conclusion, despite the benefits that students can harness from social media networks such as sharing of information, building relationship, partaking in group discussion, the finding of this study showed that excessive use of social media, especially for non-academic purposes has serious negative consequences on their academic performances.

Future Work

The use of social media has its benefits to students when used moderately. However, addressing how to mitigate the adverse effects caused by excessive use of social media for non-academic purposes will be an interesting research direction.

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