Effect of Social Media on Undergraduate Students’ Achievement in Adamawa State University, Mubi, Nigeria

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Abstract:
The study observed the impact of social media on the academic achievement of undergraduate students’ in Adamawa State University, Mubi, Nigeria. With the help of a descriptive survey design and the target population comprised of all undergraduate students of Adamawa State University Mubi, which was ascertained at 14,224 from the academic office. The sample size of 400 was chosen using stratified sampling technique from the different faculties and departments within the institution. The self-designed research instrument titled ‘Effects of Social Media on Undergraduates Students Achievement (ESMUSA) was used to collect data. Its face and content validity were established by an expert in Counselling Psychology in the Department of Educational Foundations, Adamawa State University, Mubi and test-retest reliability was carried out and a reliability co-efficient of 0.87 was obtained. The data collected were analysed using descriptive and inferential statistics such as mean, Standard Deviation, chi-square and t-test analysis. The result from the findings of this study showed that, the positive influences of social media on undergraduate students included improving daily grammatical expression, knowledge expansion and knowledge creation and dissemination. Though Social media use has negative effects on undergraduate students such as lack of privacy, distracting students from their academic work, taking most of their productive time, and such like, they also have benefits and can be used appropriately. The study concluded that most students of Nigerian universities believe that the use of social media significantly affects their academics; it could lead to positive effects on their academic achievement or negative effects if not managed efficiently. In the light of the findings of this study, it is recommended that students should be properly oriented on the influence of Social media on their academic performance so they can use it effectively towards improving their performance.

Keywords: Social media, Facebook, twitter, WhatsApp, social networking, sites and undergraduates

1. Introduction
Socialization is a process that goes on for a lifetime as people change occupations or positions and as culture itself changes. It is age-long practice of human being to establish relationship with each other in the society (Haralambos, Holborn and Healed, 2008). The introduction technology had increased the speed of socialization to a great extent. The influence has been most significantly noticed among the young people (Ibrahim, 2012). Social media has become an important tool for socialization. It had gained huge popularity as a platform for creating and exchanging contents (Kaplan and Helen, 2010) or a virtual medium for sharing (Arshin, 2010). From both mobile and computers these sites are easily accessible. 2go, Facebook, WhatsApp, Blackberry messenger, e-buddy, orbit, friend wise, Nimbuzz, myspace are very popular names in the social network platform list. Not only, communication, but also it helps to promote ideas, working status and many more information related to work place by secondary school students and Librarians etc.

In case of evaluation or assessment of academic performances, there is no such single means exists. The most relevant things are procedural knowledge such as skills or declarative knowledge such as facts (Obi, Bulus, Adamu & Sala’at 2012). Social media has caused distraction up to a great extent among young students as they are not devoting proper timing for study but chatting with friends. Most of the students are having Facebook account, perform badly in school (Oche & Aminu, 2010).

Students are highly engaged in the social media, for almost 24 hours (Olubiyi ,2012). Even due to chatting habit, students are now-a-days using short forms for many English words (like U for You, D for The etc.). This is, no doubt, affecting their skills of Grammar and English. In education, although it is important to use social media, but most of the students are using it wrongly (Ellison, Steinfield, & Lampe 2007). Continuous participation in social-media related activities also decrease their grade point (Kimberly, Jeong & Lee, 2009).
1.1. Statement of Problem

After the introduction of social media, in 1990s, it has gained huge popularity by storing a lot of information. Students have shown a tendency to use it for their studies. But it had received criticism due to students’ distraction in studies. The educational system in Nigeria is faced with so many challenges which have certainly brought about a rapidly decline in the quality of education. Rather than concentration on reading, they are spending more time on chatting and making friends. This causes detrimental effect on their academic performances. Disclosing another severe dangerous side, students have been seen chatting at highly sensitive and organized places like church, mosque and lecture halls. Even some are found to repeat this activity on high way.

1.2. Objectives of the Study Are to

- Examine the purpose of undergraduate students in their use of social media.
- Identify the positive influence of social media on undergraduate students’ achievement.
- Determine the negative influence of social media on undergraduate students’ achievement.
- Investigate undergraduate students’ utilization and benefits from social media.

1.3. Research Questions

Following are the research questions:

- Why do undergraduate learners make use of Google Scholar, Facebook, twitter and WhatsApp?
- What are the positive effects of social media on undergraduate learners?
- What are the negative impacts of learners’ engagement in social media?
- Why are students effectively utilizing and benefiting from social media?

1.4. Research Hypotheses

The following hypotheses are generated by the researcher and were tested in this study:

- H$_{01}$: There is no significant difference has been caused in the academic achievement of the students in Adamawa State University for the use of social media.
- H$_{02}$: Female students’ usage of social media network is not significantly different compared to the social media usage of male students.

1.5. Research Design

The study adopted a descriptive survey design and examined the effect of social media on undergraduate students’ achievement in Adamawa State University Mubi, Nigeria. This design is chosen because Fajonmi (2003) says that survey is used for descriptive explanatory purpose and of course this survey is descriptive in nature and therefore is more appropriate for this study. However, descriptive survey design is considered appropriate because it allows for collection of data from a group of people at the same time for the purpose of describing phenomena under study. Descriptive study also allows the investigator to discuss the phenomenon under study as it exists at the time of the study.

1.6. Population for the Study

The target population for the study comprised of all undergraduate students of Adamawa State University Mubi, which was ascertained at 14,224 from the academic office.

| Faculties            | Departments                                      |
|----------------------|--------------------------------------------------|
| Social and Management Sciences | Accounting, Economics, Business Administration, Sociology and Anthropology, Political Science and Administration, Mass Communication. |
| Sciences             | Computer Science, Mathematics, Botany, Geology, Zoology, Geography, Pure and Applied Chemistry, Biochemistry and Pure and Applied physics. |
| Arts                 | History and Languages                            |
| Agricultural Science | Animal Production, crop science, agric economics and extension, fisheries and aquaculture. |
| Education            | Science education, Art and Social Science Education, Vocational and Technical Education, Educational Foundation. |

Table 1: Faculties and Departments in Adamawa State University, Mubi

1.7. Sample and Sampling Technique

The sample size of 400 was chosen for the study. Stratified sampling technique was used to choose four faculties, and one department was chosen from each of the faculties. One hundred students were chosen from each of the four departments using sex and level as strata.
1.7.1. Research Instrument

The research instrument titled ‘Effects of Social Media on Undergraduates Students Achievement (ESMU SA) was used to collect data. It was structured on 4-points Likert scale of strongly agree, agree, disagree and strongly disagree. The instrument comprised of 30 items divided into four sections. Section A contained the demographic characteristics correspondents which constituted faculty, departments, sex, age and level. Section B consists of ten items relating to purpose for which students engage in social media. Section C consists of ten items relating to positive effect of social media on undergraduate students’ achievement, section D consists of five items relating to negative effect of social media on undergraduate students’ achievement and also section E consist of five items related to responses on student’s utilization and derivation of maximum benefit from social media.

1.7.2. Validity and Reliability of Instruments

The face and content validity of the instrument was established by an expert in Counselling Psychology in the Department of Educational Foundations, Adamawa State University, Mubi. The reliability of the instrument was carried out in Adamawa State University Mubi using test-retest reliability method. First test was administered on 30 students, while the second test was administered on the same set of students after two weeks. The reliability co-efficient of 0.87 was obtained.

1.8. Procedure for Data Collection

An introductory letter from the department of science education, faculty of science and faculty of education, Adamawa State University Mubi was given to the school. The researcher administered the questionnaire and collected them on the spot.

2. Method of Data Analysis

Data were analyzed using descriptive and inferential statistics such as mean, Standard Deviation, chi-square and t-test analysis.

3. Results

- Research Question 1: Why do undergraduate students use Google Scholar, Facebook, Twitter and WhatsApp?

| S/N | ITEMS                                      | N  | Mean | Std. Deviation | Remark |
|-----|--------------------------------------------|----|------|----------------|--------|
| 1   | Downloading music and videos               | 400| 3.58 | .836           | Accepted |
| 2   | Creating polls and quizzes                 | 400| 1.53 | .657           | Rejected |
| 3   | Submitting assignments to course lecturers or collecting course materials | 400| 3.07 | .601           | Accepted |
| 4   | Communication with mates                   | 400| 3.78 | .736           | Accepted |
| 5   | Retrieving articles from websites          | 400| 2.54 | .553           | Accepted |
| 6   | Posting photographs                         | 400| 3.21 | .694           | Accepted |
| 7   | Chatting                                   | 400| 3.79 | .657           | Accepted |
| 8   | Watching videos                             | 400| 3.09 | .862           | Accepted |
| 9   | Past examination material download          | 400| 1.59 | .607           | Rejected |
| 10  | Advertisement                              | 400| 1.38 | .732           | Rejected |

**Table 3: Purpose of Undergraduate Students Use of Social Media**

*Accepted (\bar{x} - 2.5 and Above); Rejected (\bar{x} = Less Than 2.5)*
Table 3. shows the reasons why undergraduate students in the study area use social media. The result showed that undergraduate students in the area mostly used social media for downloading music and videos ($\bar{x} = 3.58$), submitting assignments to course lecturers or collecting course materials ($\bar{x} = 3.07$), communicating with mates ($\bar{x} = 3.78$), retrieving articles from websites ($\bar{x} = 2.54$), posting photographs ($\bar{x} = 3.21$), chatting ($\bar{x} = 3.79$) and watching videos ($\bar{x} = 3.09$). However, creating polls and quizzes ($\bar{x} = 1.53$), downloading past examination materials ($\bar{x} = 1.59$) and advertisement (1.38) were however not significant as among the major uses of social media as perceived by the respondents.

- **Research Question 2:** What are the positive influences of social media on undergraduate students?

| S/N | ITEMS | N  | Mean | Std. Deviation | Remark  |
|-----|-------|----|------|----------------|---------|
| 1   | Do you normally contact your media groups or friends to assess information while lecture is going on? | 400 | 3.62 | .546 | Accepted |
| 2   | Has social media improved your daily grammatical expression? | 400 | 3.39 | .842 | Accepted |
| 3   | Is there any positive effect of social networking on your knowledge expansion? | 400 | 3.12 | .837 | Accepted |
| 4   | Has any of the social network sites contributed positively to your study pattern and learning styles? | 400 | 3.64 | .542 | Accepted |
| 5   | My consistent use of social media to boost my knowledge has led to increase in my GPA over time. | 400 | 2.44 | .480 | Rejected |
| 6   | Do you have enhanced understanding better assimilation and higher retention of difficult concepts. | 400 | 2.22 | .813 | Rejected |
| 7   | Has social media aided or improved your overall academic performance? | 400 | 2.48 | .776 | Rejected |
| 8   | Is Social media really an effective tool for knowledge creation and dissemination? | 400 | 3.30 | .863 | Accepted |
| 9   | Do you engage in group discussion on any of the social network sites? | 400 | 3.51 | .747 | Accepted |
| 10  | Has your interest in social media improved your learning? | 400 | 2.33 | .840 | Rejected |
|     | **Grand Mean** |    | 3.05 |               |         |

**Table 4:** Positive Influences of Social Media on Undergraduate Students

*Accepted ($\bar{x}=2.5$ and Above); Rejected ($\bar{x}= Less Than 2.5$)

Table 4 is on the positive influences of social media on undergraduate students. The study noted that most of the students normally contact media groups or friends to assess information while lecture is going on ($\bar{x} = 3.69$), social media has improved respondents daily grammatical expression ($\bar{x} = 3.39$), there is a positive effect of social networking on your knowledge expansion ($\bar{x} = 3.12$), Social network sites has contributed positively to respondents study pattern and learning styles ($\bar{x} = 3.64$). Social media is really an effective tool for knowledge creation and dissemination ($\bar{x} = 3.30$). It was finally noted that respondents engage in group discussion on at least one of the social network sites ($\bar{x} = 3.51$). However, it was also noted that; consistent use of social media to boost respondents’ knowledge has not led to increase in GPA over time ($\bar{x} = 2.44$). Respondents have not experienced enhanced understanding better assimilation and higher retention of difficult concepts ($\bar{x} = 2.22$). Social media has not aided or improved respondents overall academic performance ($\bar{x} = 2.48$).

- **Research Question 3:** What are the negative effects of students’ engagement in social media?

| S/N | ITEMS | N  | Mean | Std. Deviation | Remark  |
|-----|-------|----|------|----------------|---------|
| 1   | I am becoming more addicted to social media than my books. | 400 | 2.78 | .860 | Accepted |
| 2   | On line social networks sites are great source of distraction for me while studying. | 400 | 3.50 | .662 | Rejected |
| 3   | I am having difficulties in managing my time properly for effective study because of my engagement with social media. | 400 | 3.38 | .799 | Accepted |
| 4   | My course grade score not improving as expected despite my adoption of social media to enhance my performance. | 400 | 3.28 | .839 | Accepted |
| 5   | I have developed some health challenges because of constant use of social media. | 400 | 2.98 | .892 | Accepted |
|     | **Grand Mean** |    | 3.18 |               |         |

**Table 5:** Negative Effects of Students’ Engagement in Social Media

*Accepted ($\bar{x}=2.5$ and Above); Rejected ($\bar{x}= Less Than 2.5$)

Table 5 above depicts the negative effects of undergraduate students’ engagement in social media. The result noted that respondents were of the opinion that; they were becoming more addicted to social media than my books ($\bar{x} = 2.48$).
On line social networks sites are great source of distraction while studying ($\bar{x} = 3.50$), respondents experienced difficulties in managing time properly for effective study because of engagement with social media ($\bar{x} = 3.38$), it was also noted that respondents’ course grade scores were not improving as expected despite adoption of social media to enhance academic performance ($\bar{x} = 3.28$). Finally, the study noted that some respondents have developed some health challenges because of constant use of social media ($\bar{x} = 2.98$). The mean response of 3.18 shows that all responses were significant to the study.

- **Research Question 4:** Why are students effectively utilizing and benefitting from social media?

| S/N | ITEMS | N   | Mean | Std. Deviation | Remark |
|-----|-------|-----|------|---------------|--------|
| 1   | I have not requested for any academic assistance from any of my social media outlets for the past two months. | 400 | 2.55 | .498 | Accepted |
| 2   | Social media is not an effective tool for studying by me. | 400 | 2.90 | .963 | Accepted |
| 3   | I am not very proficient in sourcing for useful materials through modern technology to enhance my learning. | 400 | 3.30 | .746 | Accepted |
| 4   | I am complacent or rather hesitant to new approaches of learning or studying through the aid of social media. | 400 | 3.13 | .745 | Accepted |
| 5   | I do not have any social media group that discuss about biology | 400 | 3.35 | .678 | Accepted |
|     | **Grand Mean** |     | **3.04** |             |        |

*Table 6: Students Utilization and Benefits from Social Media

*Accepted ($\bar{x}$=2.5 and Above); Rejected ($\bar{x}$= Less Than 2.5)*

Table 6 above depicts the utilization and derivation of maximum benefit from social media by undergraduate students. The results show that respondents have not requested for any academic assistance from any of my social media outlets for the past two months ($\bar{x} = 2.55$). Social media is not an effective tool for studying ($\bar{x} = 2.90$), respondents are not very proficient in sourcing for useful materials through modern technology to enhance my learning ($\bar{x} = 3.30$). Respondents are complacent or rather hesitant to new approaches of learning or studying through the aid of social media ($\bar{x} = 3.13$). It was also noted that respondents do not have social media group that discuss about biology ($\bar{x} = 3.35$).

- **Hypotheses 1:** there is no significant difference has been caused in the academic achievement of the students in Adamawa State University for the use of social media.

| Schools | Social Media Use | Academic Achievement | $x^2$ | Df | P |
|---------|------------------|----------------------|-------|----|---|
| Count   | 301              | 128                  | 64.131| 2  | < .05 |
| Facebook| 75.1%            | 32.0%                |       |    |    |
| Count   | 362              | 302                  |       |    |    |
| WhatsApp| 90.5%            | 75.5%                |       |    |    |
| Count   | 241              | 89                   |       |    |    |
| Twitter | 60.3%            | 22.3%                |       |    |    |
| Count   | 311              | 102                  |       |    |    |
| Instagram| 77.8%          | 25.5%                |       |    |    |

*Significant ($P<.05$)

Table 7 above shows that Facebook had 75.1% usage rate however, academic achievement of Facebook users as perceived by respondents were low as shown by 32.0%. WhatsApp had 90.5% usage rate and an academic achievement rate of 75.5%. This can be attributed to the fact that most students create groups on WhatsApp in other to share course documents and webpages relating to the course. Twitter however had a 60.3% usage rate while academic achievement rate was found at 22.3%. Instagram had a usage rate of 77.8% while academic achievement was recorded at just 25.5%. The chi square result indicates that $x^2 (2, N = 400) = 64.131$, p < .05. The result indicates that, the p value is less than 0.05. So, it can be interpreted that, there is a significant influence of social media use on academic achievement of undergraduate students.

- **Hypotheses 2:** female students’ usage of social media network is not significantly different compared to the social media usage of male students.
Table 8 above showed the difference between the academic performances of male and female undergraduate students in Adamawa State University. The male students have a mean of 2.2897 while the female students have a mean of 2.0912. The Sig. 2-tailed value of 0.15 is higher than the alpha value (α= 0.05). Hence, the null hypothesis accepted. This means that there is no significant difference between male and female social media use in Adamawa State University.

4. Discussion

The study found out that in assessing the positive influences of social media on undergraduate students the following were significant; most of the students normally contact media groups or friends to assess information while lecture is going on, social media has improved respondents daily grammatical expression, there is a positive effect of social networking on your knowledge expansion, Social network sites has contributed positively to respondents study pattern and learning styles. Social media is really an effective tool for knowledge creation and dissemination. It was finally noted that respondents engage in group discussion on at least one of the social network sites.

However, in deducing the negative effects of undergraduate students’ engagement in social media. The result noted that respondents were of the opinion that they were becoming more addicted to social media than my books, On line social networks sites are great source of distraction while studying, respondents experienced difficulties in managing time properly for effective study because of engagement with social media, it was also noted that respondents’ course grade scores were not improving as expected despite adoption of social media to enhance academic performance. Finally, the study noted that some respondents have developed some health challenges because of constant use of social media. This is in-line with the findings of Olubiyyi (2012). The author mentioned about the involvement level of students i.e. almost 24 hours.

In assessing the utilization and derivation of maximum benefit from social media by undergraduate students. The results show that; respondents have not requested for any academic assistance from any of my social media outlets for the past two months. Social media is not an effective tool for studying; respondents are not very proficient in sourcing for useful materials through modern technology to enhance my learning. Respondents are complacent or rather hesitant to new approaches of learning or studying through the aid of social media. It was also noted that respondents do not have social media group that discuss about Biology. This shows that although the avenue and the capacity was open to the students, most of them preferred to use the social media for other activities other than for academic activities.

This study found out that there is a significant influence of social media use on academic achievement of undergraduate students. The chi square result indicates that \( \chi^2 (2, N = 400) = 64.131, p < .05 \). Facebook, Instagram and twitter were noted to have significantly negative effect on student academic achievement, while WhatsApp raised the percentage of academic achievement of students. This is attributed to the fact that most students form groups on the social media platform and are able to send soft copies of textbooks, notes and other course resources. The negative influence in the other three social media platforms is attributed to the fact that most students tend to log on to unnecessary news and activities online which do not necessarily benefit their academic achievement. However, a reduction in their use of social media for such uses will significantly increase their academic achievement. This finding is in accord with the findings of Poulkhan (2010), whose study revealed that social networking is most likely to affect students’ grammar usage, make the students take short cuts in school work and get distracted in their academic exercise.

It was also noted that there is no difference between male and female undergraduate students use of social media in Adamawa State University. The male students have a mean of 2.2897 while the female students have a mean of 2.0912. The Sig. 2-tailed value of 0.15 is higher than the alpha value (\( \alpha = 0.05 \)). This posits that both male and female respondents significantly used social media in the study area. Whereas, Khan (2010) found out that involvement level in social media is different for male and female. Majority of female Government students use social media sites for academic purposes such as assignment, sharing of ideas, discussing class work activities etc. A greater number of male students use social media sites for communication and entertainment purposes.

5. Conclusion

It was noted that social media has significant influence on academic achievement of undergraduate students. Although most of the social media platforms (Facebook, Instagram and twitter) reported negative influences, WhatsApp had a positive influence as its increased students’ performance in the study area. Most students of undergraduates believe that the use of social media negatively affect their academics in that social media usage reduces the time they spend on their studies, distract them during lectures and library sessions as well as directly affect their cumulative grade point average. This had some displacement effects on the academic routines of some students, while others had been able to balance the use of social media and their academics.
6. Recommendations
In the light of the findings of this study, the following recommendations are made:

- There is enough evidence that social media has content to educate students, but to avoid distraction, better time management is necessary.
- Monitor from parent’s end may help.
- In schools, teachers need to highlight the use of social media as a tool to improve the academic performance of students.
- More academic oriented social networking sites need to be expanded.

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