

Two Way Crossed Classification of Social Media Usage Time and Study Time as Factors Affecting the Academic Performance of Nigeria Students.

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Abstract: Social media as the name implies has been a medium of social interactions, information dissemination and communications in our world today. In other words, it is a computer-based technology that makes it easier to communicate ideas, opinions, and facts by forming important networks and organizations. As such, its importance has been hugely harnessed in education sector for information sharing, searching and social interaction among university students. However, its usage among students may have negative impact on their academic performances. Therefore, this study tried to find out the impact of the variables; social media usage time and study time on the academic performance of Nigerian students using Two-way Crossed Classification. A sampling survey strategy was adopted to get a representative of our target population of university students from which we inferred our findings for the entire population under study. To achieve this, a google form comprising of ten questions of which two of the questions were provided on a five-point Likert scale, with the five possibilities being strongly disagree, disagree, strongly agree, agree, and neutral was developed. The study revealed that spending time on social media alone is not sufficient to adversely affect a student's academic performance. It also says the same for time spent studying. That means that these two factors when acting alone do not affect a student's academic performance either positively or negatively. Now, this does not entirely imply that social media usage time cannot affect students' performance or that spending time studying has no part to play in students' performing well or poorly but at the 95% confidence level i.e., a significance level of 5% these factors have no individual significant contribution to students' academic performance.

I. Introduction

Social media is where individuals can communicate and exchange information via media such as the internet or their mobile phones. The application of scientific advances has had a significant impact on student behaviour and academic achievement around the world. This scientific breakthrough continues to shatter communication barriers, paving the way for new ways to connect worldwide listeners. Students can access the internet and communicate with one another through a variety of social media platforms thanks to technological advancements. Among students of all ages, according to finding by (Azizi et al.,) students at universities are some of the most popular social media users. A social media platform is an application that allows its community of users to communicate socially and share content. Despite the fact that social media is used by people of all ages, researches have indicated that it is particularly prevalent among young people (Onuoha & Saheed, 2011) and students in higher education institutions. Research conducted by Sajithra and Patil (2013), states that the word-of-mouth networks have been around for a long time and is logical extension and expansion of social networking sites. The most effective and dependable technique of disseminating information has always been word of mouth. Personal computers, mobile phones, and tablets are examples of Internet-enabled devices which have exploded in popularity in recent years are multiplying and becoming more accessible, social media has surged in popularity. Teenagers and young people, in particular, have embraced these tools as a way of staying in touch with friends; sharing information, redefining their identities, and showing their social lives (Boyd, 2007). As a result, many students eagerly take advantage of these opportunities by investing considerable time to various social networking sites. Whether or not social media has an effect on a student's academic achievement, however, remains an open subject.

As a result, the current study is critical in filling in these information gaps in the field of education in Nigeria. Its findings will also disclose why students use social media, if it has an impact on academic achievement, the interplay of gender differences, and the interaction of age. As a result, the primary goal of this research is to see if Undergraduate students' academic performance improves when they use social media at the University of Nigeria, Nsukka.

1.1 Statement of the problem

The study on the effects of social media, its emergence and application to the various aspects of the day-to-day activities of the modern world is as old as the introduction of the concept of social media itself. Over the years, the use of ICT gadgets and social media apps and platforms e.g., Facebook, Twitter, Whatsapp, Instagram, Tiktok, etc. has constantly been on the increase. Researches have shown that a great number of people who use these social media platforms are mostly young people between the ages of 18 – 35 years. Students of various higher institutions of learning fall into this age group and it has been established in papers by Ezeah (2013), Aghaunor (2015), etc. that the addiction of students to ICT and social media is on the increase and this has many-a-time led to their poor performance academically. However, no conscious effort has been made to study the combined effect which the time spent studying and time spent online have on the students' academic performance. Hence, this study sets out to analyze and report the combined and individual effects of social media usage time and study time on the academic performance of students in the higher institutions.

II. Literature Review

Social media is where individuals can communicate and exchange information via media such as the internet or their mobile phones. The application of scientific advances has had a significant impact on student behaviour and academic achievement around the world. This scientific breakthrough continues to shatter communication barriers, paving the way for new ways to connect worldwide listeners. Students can access the internet and communicate with one another through a variety of social media platforms thanks to technological advancements. Among students of all ages, according to finding by (Azizi et al.,) students at universities are some of the most popular social media users. A social media platform is an application that allows its community of users to communicate socially and share content. Despite the fact that social media is used by people of all ages, researches have indicated that it is particularly prevalent among young people (Onuoha & Saheed, 2011) and students in higher education institutions. Research conducted by Sajithra and Patil (2013), states that the word-of-mouth networks have been around for a long time and is logical extension and expansion of social networking sites. The most effective and dependable technique of disseminating information has always been word of mouth.

Personal computers, mobile phones, and tablets are examples of Internet-enabled devices which have exploded in popularity in recent years are multiplying and becoming more accessible, social media has surged in popularity. Teenagers and young people, in particular, have embraced these tools as a way of staying in touch with friends; sharing information, redefining their identities, and showing their social lives (Boyd, 2007). As a result, many students eagerly take advantage of these opportunities by investing considerable time to various social networking sites. Whether or not social media has an effect on a student's academic achievement, however, remains an open subject.

According to Ozlem, A. & Neslihan, O (2019) which examined high school students' use of social media in relation to a number of factors, including age, class, type of school, gender, and daily average internet usage time. The study employed a survey methodology. Both the "Personal Information Form" created by the researcher and the "Social Media Addiction Scale" (SMAS) created by Tutgun-Unal were utilized as data gathering methods. The information was gathered from a total of 596 pupils enrolled in three high schools in Kirsehir, Turkey, with varying academic accomplishment levels. Gender-related differences were not found to be statistically different. Examining the aggregate results of high school students on the Social Media Addiction Scale, the students are found to have "minimal level of addiction." The average daily internet usage time of high school pupils and social media addiction were also found to be significantly correlated. One of the main issues of our time is addiction to social media. As a psychological condition that progresses through cognitive, affective, and behavioral processes, social media addiction can lead to issues like occupation, emotion modification, relapse, and conflict in a variety of daily life contexts, including private, professional/academic, and interpersonal. With the advancement of mobile technology and internet networks, more individuals are using social media applications for things like feeling lonely, interacting, and spending time online, among other things. In the same vein, Singh, R. (2019) showed that the utilization of various educational media and multimedia in teaching and learning processes was the main focus of this study. It also emphasized the numerous categories under which these media fall. Empirical studies showed the benefits of various media in teaching and learning processes using the content analysis method. The use of educational media in the teaching and learning process is crucial. Media may be used in virtually every discipline to improve learning both in and outside of the classroom. According to research, when abstract, new, and novel concepts are presented in both verbal and visual form, individuals absorb them more quickly. Other empirical research demonstrates that visual media aid in later recollection and make things more approachable to a person than text media. All types of learners with various learning styles—visual, aural, and kinesthetic—can benefit from these media. It keeps the student concentrated and actively involved in the classroom teaching and learning process. These media have enormous value for the teaching and learning processes in the classroom. The ability to use this media for instruction should be developed by the teachers. To raise awareness of modern

medium, governments and school administrators should work to include instructional media and multimedia in the primary and secondary school curricular.

According to Daluba and Maxwell (2013) which claims that for work, school, and entertainment, millions of individuals utilize social media platforms on a regular basis. The purpose for which students consume media, as well as the impact this activity has on academic attainment, has recently been a hot topic in the academic community.

Similarly, the benefits are to encourage more social interaction through electronic mediums, improve the technological competency of frequent social media users, increase access to knowledge and information sources, foster a sense of belonging among users, reduce distance and time barriers to group involvement and communications, social/economic status, and encourage more social connection through electronic media, among other factors (Connolly, 2011; De Zwart, Lindsay, Henderson & Phillips, 2011). In higher education, social media appears to have a major influence on the learning process, according to Aghaunor and Ekuobase (2015), by providing new opportunities for students and teachers. Students, on the other hand, are finding it impossible to diminish its negative attractiveness with the recent rise of ICT tools and services. "Others are concerned that the Nigerian social media phenomena is causing students to spend less time studying their books, resulting in poor academic performance. Despite this, little study has been done relating to the control of social media event on students classroom activities in Nigerian educational establishments. The study of Students' Academic Success and ICT Social Services by Aghaunor et al (2015) focused on ICT tools rather than any single social media platform.

In their research, they looked at how university students used social media in South-East Nigeria, Ezeah, Asogwa, and Edogor (2013) and were unable to identify whether or if there is one substantial "Social media" has a difference in habit between male and female students.

Similarly, Buhari and Ashara (2014) disregarded the same factor in their study of Nigerian Polytechnic Students' Use of Social Media. There was also no attempt to see if there is a substantial variation in "social media" habits based on age.

As a result, the current study is critical in filling in these information gaps in the field of education in Nigeria. Its findings will also disclose why students use social media, if it has an impact on academic achievement, the interplay of gender differences, and the interaction of age. As a result, the primary goal of this research is to see if Undergraduate students' academic performance improves when they use social media at the University of Nigeria, Nsukka.

A web-based service that allows users to build profiles is known as social networking which is open to the public or semi-public in a restricted context (Obi et al., 2012). The advent of the Smartphone has boosted users the access to a variety of social networking sites with just a few clicks, as this increases their social media usage (Kim & Khang 2014; Obi et al., 2012). Social networking sites have long been regarded as useful teaching and networking tools for individuals from a variety of backgrounds (Lenhart et al., 2010; Wodzicki et al., 2012). Students can share their ideas daily on their learning experiences on social media, which can help them grow academically Tariq et al., 2012 and Khan, 2012 as well as Hasnain et al., 2015 and Amin et al., 2016. Consequently, social networking had an adverse effect on academic achievement of children (Obi et al., 2012). When a child spends too much time, it has an impact on his academic performance and ability to excel in class when he uses social media (Vanden Boogart, 2006; Tamayo & Dela, 2014; Alwagait et al., 2015; Tamayo & Dela, 2014). The students' primary focus of attention is on social networking sites, and then diverted to non-educational and unsuitable activities such as useless chatter (Kuppuswamy & Shankar, 2010). Extracurricular and academic programs are insufficient to meet the needs of some students who have become socially isolated as a result of social networking (Tinto, 1997).

Teenagers are particularly vulnerable to social media; the more they use it, the more it affects their study habits, assuming that their social media buddies begin to exert power over different individual by Trusov et al., 2009. The utilization of websites for social networking is on the rise and increasingly being used as a method of communication by citizens of all ages. Students, in particular, are at risk as a result of having easy internet access and participation in social networking activities. The number of users has constantly increased since its inception, particularly among students who are subjected to a great deal of neglect and obstacles in their academic performance, resulting in a quick reduction in educational quality. It has been shown that students are more interested in social media than in their education. Students are using social media for longer periods of time than ever before, chatting and making friends, rather than reading their books, which may have an impact on their academic achievement. As a result, it's critical to examine some of the topical concerns that are harming students' academic progress as a effect of social media usage. As a matter of purpose, the objective of the investigation is seen as the way social media affects educational accomplishment at University of Nigeria, Nsukka. This shows how much students utilize these sites, which can have both beneficial and negative effects on their academic achievement.

2.1 Theoretical Framework

Grade Point Average (GPA) defines students' performance based on the efforts they put in studying and academic activities online. In Nigeria Universities, high GPA (4.5 – 5.0) indicates an excellent academic performance, GPA (3.5 – 4.49) indicates a good performance, GPA (2.5 – 3.49) indicates a poor performance while GPA below 2.5 indicates a weak academic performance. Thus, we investigate the activities of Nigerian students online and the impact it has on their GPA. Academic performance is the dependent variable while social media factors that affect students GPA are the independent variables. Some studies believe that the time spent on non-academic activities on social media affect students' performance (Rithika & Selvaraj, 2013; Buhari, Ahmad & Had iAshara, 2014; Hasnain, Nasreen, & Ijaz, 2015; Amin et al., 2016; Mahdi, 2019; Hameed, Haq, Khan & Zainab, 2022). In addition to the studies already conducted, this research collates the last session GPA of the students to properly ascertain the correlation between students' performance and social media usage. Therefore, we propose the theoretical model shown in Figure 1 using the following hypothesis:

- H1: Time spent on social media and Time spent studying affects student's academic performance
- H2: Time spent on social media and Time spent studying affects student's academic performance
- H3: Number of Hours spent on Social Media affects student's Academic performance
- H4: Number of Hours spent on Social Media affects student's Academic performance

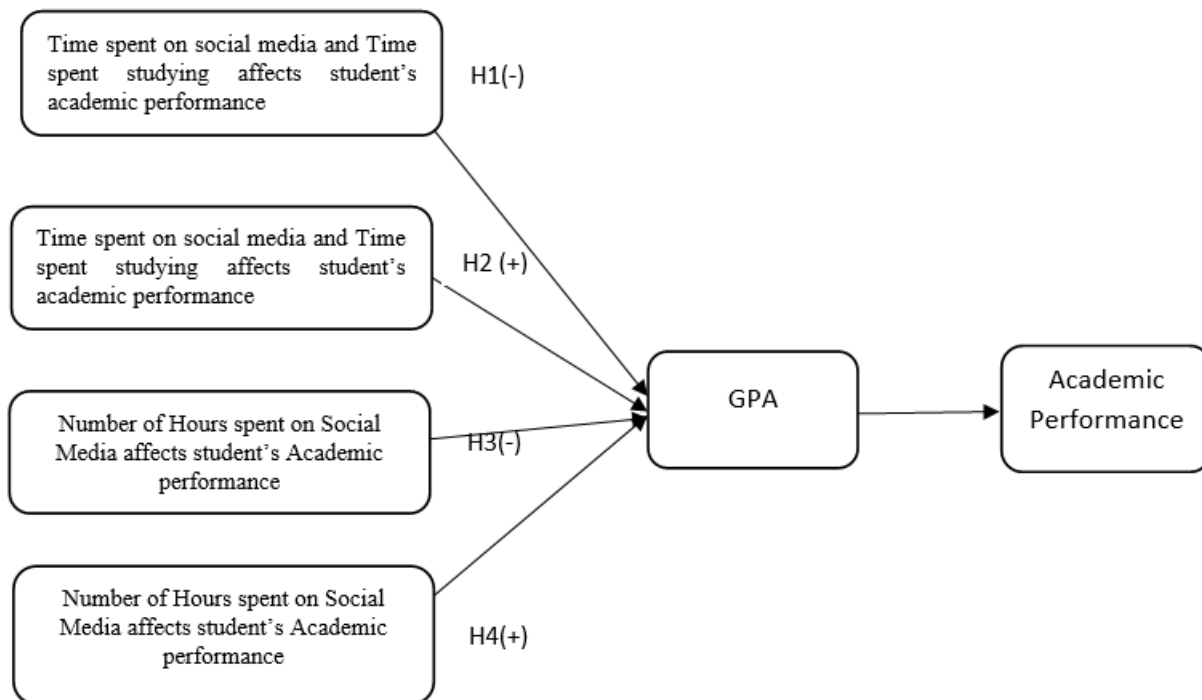


Fig. 1. Proposed Model

Social media is where individuals can communicate and exchange information via media such as the internet or their mobile phones. The application of scientific advances has had a significant impact on student behaviour and academic achievement around the world. This scientific breakthrough continues to shatter communication barriers, paving the way for new ways to connect worldwide listeners. Students can access the internet and communicate with one another through a variety of social media platforms thanks to technological advancements. Among students of all ages, according to finding by (Azizi et al.,) students at universities are some of the most popular social media users. A social media platform is an application that allows its community of users to communicate socially and share content. Despite the fact that social media is used by people of all ages, researches have indicated that it is particularly prevalent among young people (Onuoha & Saheed, 2011) and students in higher education institutions. Research conducted by Sajithra and Patil (2013), states that the word-of-mouth networks have been around for a long time and is logical extension and expansion of social networking sites. The most effective and dependable technique of disseminating information has always been word of mouth.

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Similarly, the benefits are to encourage more social interaction through electronic mediums, improve the technological competency of frequent social media users, increase access to knowledge and information sources, foster a sense of belonging among users, reduce distance and time barriers to group involvement and communications, social/economic status, and encourage more social connection through electronic media, among other factors (Connolly, 2011; De Zwart, Lindsay, Henderson & Phillips, 2011). In higher education, social media appears to have a major influence on the learning process, according to Aghaunor and Ekuobase (2015), by providing new opportunities for students and teachers. Students, on the other hand, are finding it impossible to diminish its negative attractiveness with the recent rise of ICT tools and services. "Others are concerned that the Nigerian social media phenomena are causing students to spend less time studying their books, resulting in poor academic performance. Despite this, little study has been done relating to the control of social media event on student's classroom activities in Nigerian educational establishments. The study of Students' Academic Success and ICT Social Services by Aghaunor et al (2015) focused on ICT tools rather than any single social media platform.

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Ezeah, Asogwa, and Edogor (2013) in their research, made some findings on how university students use social media in South-East Nigeria. Their research is based on finding what students in Nigeria use the social media for, to discover whether the use of the media reduces the study time of students and to ascertain if it has positive impacts on the students. They revealed among other findings that students study time is reduced due to the high amount of time they devote to using social media. Furthermore, no test was carried out to know if there are relationships between these findings which could actually affect their academic grades. Similarly, Buhari and Ashara (2014) disregarded the same factors in their study of Nigerian Polytechnic Students' Use of social media. There was also no attempt to see if there is a substantial variation in "social media" habits based on age.

As a result, the current study is critical in filling in these information gaps in the field of education in Nigeria. Its findings will also disclose why students use social media, the interplay of gender differences, and the interaction of age. Furthermore, this study will check if these findings have impact on academic achievement. As a result, the primary goal of this research is to see if Undergraduate students' academic performance improves when they use social media at the University of Nigeria, Nsukka.

III. Research methodology

This investigation employed a Google Form research design as its research technique. This decision was influenced by the objectives and research questions which the study focused on. Descriptive statistics was employed to give the detailed description of the various variables in the data and their corresponding responses. Hypothesis testing was employed to answer the questions for which the survey was conducted by testing the various hypothesis put forth by the researchers. The statistical technique used to conduct this hypothesis testing is the Two Way Categorical Analysis of Variation (Two Way CATANOVA). The population under study are students within the age bracket of 18-35 years because previous research had shown that a great number of people who use social media platforms are mostly in that age bracket. The sample size was determined via simple random sampling technique which ensured that each participant of the population had an equal chance of being chosen in the sample.

Data collection technique

A Google formed questionnaire was used for the primary data collection. The outcome of the study was analyzed with MS Excel and R. MS Excel was used for data cleaning and proper formatting while R was used for the analysis. There are ten (10) questions in the survey. The first four questions aimed to capture respondents' socio-demographic data which include personal

information like gender, age, educational level and name of school. Question five used a five grade point to find out the academic performance of the students. Question six used a 5-point Likert scale question that included strongly agreed (5 points), agreed (4 point), neutral (3point), disagreed (2 points), and strongly disagreed (1 point) to gather information about the degree to which time spent on social media affects academic performance.

A Google form was used in preparing the questionnaire while the questionnaire was distributed online. The questionnaire was distributed to students of various faculties with much of the responses coming from those of the faculty of the physical sciences. A total of 500 responses were returned

IV. Results

Data cleaning, sorting and arrangement to prepare the data for analysis was done using MS Excel and R was used in part for the analysis and chartings. Since the data collected were basically categorical in nature, count data obtained was arranged in a tabular format for ease of data understanding and comprehension.

Table 1: Socio-demographic characteristics of the studentsn = 500

	Frequency	Percent (%)
Age		
- 16-18	68	13.6
- 19-21	218	43.6
- 22-25	168	33.6
- 26-29	46	9.2
Gender		
- Male	345	69
- Female	155	31
School		
- University of Nigeria, Nsukka	500	100
Level of Study		
- 1 st Year	29	5.8
- 2 nd Year	161	32.2
- 3 rd Year	139	27.8
- 4 th Year	114	22.8
- 5 th Year	57	11.4
Study Time		
- 0 – 3 hours	265	53
- 4 – 8 hours	214	42.8
- 9 – 12 hours	19	3.8
- 13 hours and above	2	0.4
Social Media Usage Time		
- 0 – 3 hours	250	50
- 4 – 8 hours	190	38
- 9 – 12 hours	52	10.4
- 13 hours and above	28	5.6
Grade Point Average		
- Below 1.5	8	1.6
- 1.5 – 2.49	20	4
- 2.5 – 3.49	159	31.8
- 3.5 – 4.0	255	51
- 4.5 – 5.0	58	11.6
Grade Point Average Category		

- Above Average	313	62.6
- Below Average	187	37.4

A good look at the table in Table 1 reveals some very interesting descriptive statistics of the collected data. Out of the 500 students that participated in the survey, 345 (69%) were males and 155 (31%) were females. They were all from the same institution across various study years with 29 (5.8%) in first year, 161 (32.2%) in second year, 139 (27.8%) in third year, 114 (22.8%) in fourth and the remaining in their fifth year. The study which also included students of various ages revealed that the greater proportion of students who participated in the survey were between the ages of 19 – 21 (43.6%) and that students between the ages of 26 – 29 least participated with a rate of 9.2%.

Our variables of interest study time and social media usage time showed some interesting characteristics in the survey. Between 0 -3 hours, 265 students’ study while 250 students use their social media in this time period. For the time period of 4 - 8 hours, 214 students’ study whereas 190 students use their social media. Between 9 – 12 hours, 19 students’ study while 52 students use social media in this time period. Between the time period of 13 hours and above, only 2 students’ study and 28 students use their social media. For the two categories of the Grade Point Average i.e. GPA Category, a total of 313 (62.6%) students had a GPA in the category of Above Average (AA) while the remaining 187(37.4) were in the Below Average (BA) category.

The plots below will help in visualizing these descriptive statistics given above

Figure 1: Distribution of Students by Time spent on Social Media

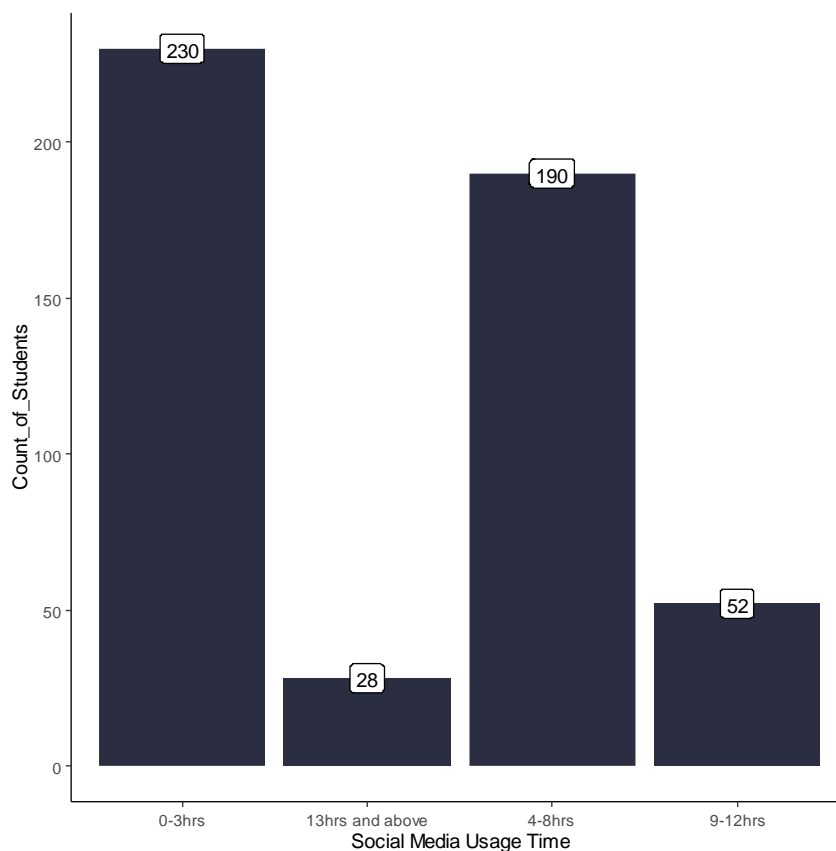


Figure 2: Distribution of Students by Time spent Studying

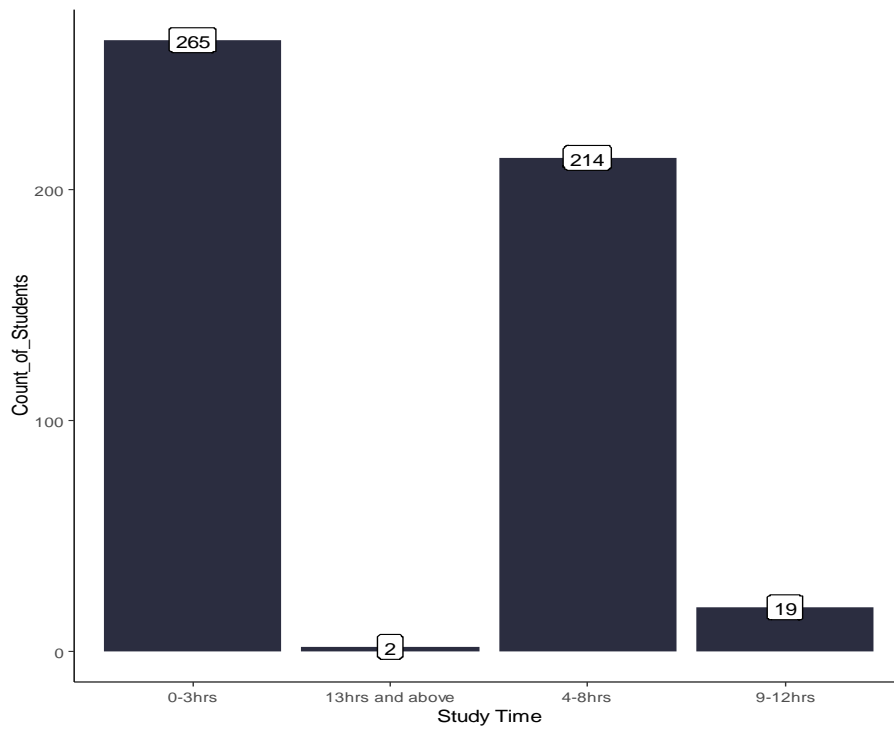


Figure 3: Distribution of Students by Grade Point Average Category

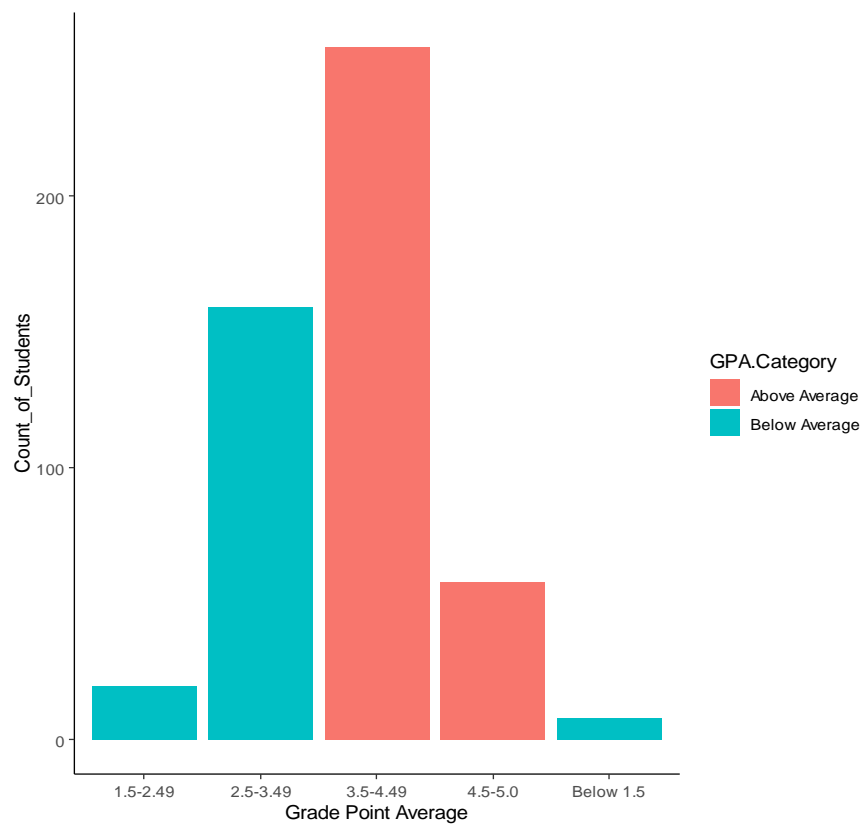


Table 2: Crossed Classification of the Two Factors

	Study Time (j)												TOTAL		GRAN D
	0-3 hours			4-8 hours			9-12 hours			13 hours and above			AA	BA	
Social Media Usage Time (i)	AA	B A	TOTA L	AA	B A	TOTA L	A A	B A	TOTA L	A A	BA	TOTA L	AA	BA	TOTAL
0-3 hours	83	39	122	58	39	97	9	1	10	1	0	1	151	79	230
4-8 hours	74	20	94	47	39	86	6	3	9	1	0	1	128	62	190
9-12 hours	12	11	23	14	15	29	0	0	0	0	0	0	26	26	52
13 hours and above	6	20	26	2	0	2	0	0	0	0	0	0	8	20	28
TOTAL	175	90	265	121	93	214	15	4	19	2	0	2	313	187	500

From Table 2, 175 students who studied for 0-3 hours were ranked Above Average (AA) whereas 90 students who studied for the same amount of time were ranked Below Average. On the whole, it can be clearly seen that 83 students who spent at most 3 hours on social media and studied for at most 3 hours as well were mostly ranked Above Average (AA) and out of the 28 students that spent more than 13 hours on social media, 20 of them had GPA's that were Below Average and only 8 were Above Average.

There are a lot more descriptive statistics that can be extracted from the table, but of interest to the researcher is the effects of these two factors; Study Time and Social Media Usage Time on students' Academic performance. These effects can be seen independently i.e. each factor on its own and as well combined i.e. the two factors cross examined at the same time. For the researcher to achieve this, these effects would be studied using a more advanced statistical technique. This technique to be used in testing our earlier stated hypothesis (claims) is the Two Way Crossed Classification Categorical Analysis of Variance or simply put Two Way CATANOVA.

Crossed designs study the effect of each factor on the response variable and the effects of the interactions between the factors on the response variable. Two way CATANOVA normally proposes a model to explain the relationship between variables. The model which explains the relationship between the factors in this study is given below;

$$E(\pi_{ijk}) = \mu + \tau_i + \beta_j + \lambda_{ij} \text{ where}$$

μ is a constant,

τ_i is the effect of the i^{th} level of Social media usage time i.e. $i = 1,2,3,4$ (Since social media usage time has four levels) on the student's Academic performance

β_j is the effect of the j^{th} level of Study time i.e. $i = 1,2,3,4$ (Since Study time has four levels) on the student's academic performance.

λ_{ij} is the interaction effect (combined effect) between the i^{th} level of social media usage time and the j^{th} level of Study time on the academic performance of students.

The model above is not the main interest of this study as the researcher does not intend to obtain the parameter estimates to estimate the model. The researcher's interest however, is to study the interplay of these variables on the response in order to support or reject the hypothesis pertaining to the work. The Table below shows the results of the analysis carried out on the data.

Table 3: Significance of Effects

Source Variation	of	Degree Freedom	of	Sum of Squares	Test Ratio	Critical Value	Decision
Social Media Usage Time		3		9.428	60.283	7.815	(reject H3)
Study Time		3		3.772	23.799	7.815	(reject H4)
Social Media Usage Time & Study Time (Interaction)		9		6.11	13.02	16.919	(accept H1) and (reject H2)
Within Units		484		214.814	--	--	--
Total		499		234.124	--	--	--

The decisions as to whether the results were to be accepted or rejected in the decision column are based on the criterion that the result is rejected if the test ratio is greater than or equal to the critical value at a significance level of 0.05 i.e. (5%). Hence, the rejection results for the row and column reveal that actually, study time on its own has no effect on the academic performance of students. It also reveals that social media usage time also has no individual effect on the students' GPA. As for the interplay of the two factors i.e., the interaction effect of the factors combined, the results revealed that at 5% significance level, there is sufficient evidence to support the claim (hypothesis) that the combination of the two factors have an effect on the students' GPA.

From the foregoing, it can be seen that given our initial hypothesis and the current results available, that hypothesis H1 (Time spent on social media and time spent studying affects students' academic performance) was supported. H2 (Time spent on social media and time spent studying does not affect students' academic performance) was not supported. H3 (Time Spent on social media affects students' academic performance) was not supported and H4 (Study time affects students' academic performance) was also not supported.

In general, from the findings above, it is clear that Social Media Usage Time and Study time do not have separate individual effects on the GPA of students; but when combined together, they have a significant effect on the students' performance.

V. Discussion

In the present study, the researchers evaluated two factors affecting the academic performance grades of students in the University of Nigeria, Nsukka. This study like a lot of others carried out on the issues pertaining to social media usage and academic performance is timely and assists researchers, lecturers and even students to gain insights on how social media affects a student's performance.

Comparing this research work with past researches, past studies have constantly examined how various social media platforms and ICT applications have either benefitted or endangered students' commitment to studying, flow of studying and largely their academic performance. The current research work distinguishes itself by narrowing the broad range of factors considered in previous studies to time spent studying and time spent on social media. This study's findings revealed that time spent on social media and time spent studying have a combined effect on the academic performance of students. This finding however was in sharp contrast to that of Okundia (2016) which reported that there is no relationship between social media usage and academic performance. Meanwhile, Ezeah (2013) noted that the students use of social media reduces the time they devote to their studies. This implies that a student who spends more time on social media is more likely to spend less time studying and in so doing has a greater chance of not performing well in their academics. This in itself is true in most cases though not in all due to the outplay of some other factors that might also affect a student's performance. The assertion above is however supported by Iro-Idoro and Jimoh (2017) who revealed that participation in social media impairs the dedication of students to academic activities and that it has negative effects on students' academic performance. On this, Aghaunor (2015) further noted that, despite how distractive ICT is to students' performance, students still remain addicted to it.

The current study also revealed that spending time on social media alone is not sufficient to adversely affect a student's academic performance. It also says the same for time spent studying. That means that these two factors when acting alone do not affect a student's academic performance either positively or negatively. Now, this does not entirely imply that social media usage time cannot affect students' performance or that spending time studying has no part to play in students' performing well or poorly but

at the 95% confidence level i.e., a significance level of 5% these factors have no individual significant contribution to students' academic performance.

The major derivative from this work is that the time students spend studying and the time they spend on social media when combined together have a significant effect on their academic performance.

Limitations to the study & Further Suggestions

This study chiefly used two factors to study their effects on the academic performance of students. It is common knowledge that there are quite a number of other factors that can also affect performance of students. The researchers believe that these other factors can be incorporated into future studies. Also, that the study was unable to show the individual effect of the two factors considered in this study on Academic performance does not imply or mean that their individual effects do not entirely exist; since this study was carried out at a significant level of 0.05, there is a possibility that if it is carried out at another level of significance either higher or lower, the results might be different which may lead to an acceptance of H3 and H4.

Another limitation is that the researcher has only been able to work on one institution. The results can also come out in support of H3 and H4 in further researches given the right number of resources enabling the research to be carried out across various institutions and even covering geo-political zones.

Authorship contribution statement

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