

THE EFFECT OF SOCIAL MEDIA USAGE AND ANXIETY ON ACADEMIC ACHIEVEMENT AMONG SENIOR SECONDARY SCHOOL STUDENTS IN SOKOTO STATE

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Abstract

The aim of this study was to examine the relationship between social-media usage and anxiety on academic achievement among senior secondary school students in Sokoto state, Nigeria. A quantitative survey research design was employed to examine 400 students from senior secondary schools in Sokoto state. For the collection of data, questionnaires, namely: Social-Media Usage Test Scale (SMUTSQ), Anxiety Test Scale (ATS), and Students Academic Achievement Scale (SAAS) measured by their result in their senior secondary school examinations were used. The result of analysis indicated a negative and significant relationship between social media usage and anxiety ($r = -0.80$; $p < 0.05$) and a negative and significant relationship between social media usage and academic achievement ($r = -0.34$; $p < 0.05$). Based on the findings and discussions, it can be concluded that anxiety and social media usage have significant negative effect on academic achievement. It can also be concluded from the findings that social media usage negatively and significantly moderated the effects of anxiety on academic achievement. The findings of this study have a great contribution to the theoretical body of knowledge on students' social media usage and test anxiety, particularly in Sokoto state, Nigeria.

Keywords: Social-Media, Anxiety, Education, Academic Achievement, secondary school students.

Introduction

Academic achievement denotes performance outcomes that indicate the extent which an individual has attained specific goals of the planned educational period Steinmayr et al. (2017). Academic achievement depicts the educational system's success in aiming and attending to individual needs (Aloka et al, 2018). It is one of the most important goals of any meaningful educational process. Sokoto state of Nigeria has been ranked low in all external examinations; National Examination Council (NECO), West African Examination council (WAEC) and National Board for Technical and Business Education (NABTEB). This is evident in the Reports that, only about 20% of the state students passed their Senior Secondary School Certificate Examinations (SSCE) organised by NECO, WAEC and NABTEB respectively (National Bureau of Statistics, 2017).

Students today face lots of problems which include test anxiety; this usually affects and impairs learning, leading to poor performance in exams. Test anxiety is common among learners; thus, it is a phenomenon that most students have to battle with. (Stoker and Perkin 2014) have posited that test anxiety usually affects and impairs learning and affects exam performance; this problem, therefore needs be tackled effectively in order to improve academic achievement. In recent times, there is an upsurge in the usage of social media among individuals, the concern here is the addictive nature the internet has on the general public; particularly on students in institutions of learning.

Researchers like (Niemez, Griffiths and Banyard, 2005; Kakaraki, Tselios and Katsonas, 2017; Iyitoglu and Celikoz, 2017), posit that the increasing usage of social media is linked to the free and unlimited access to information provided by the internet on a 24 hourly basis. Social media also provides avenue for students to escape from stressful activities, while at the same time enable them seek for companionship, (Jacobsen, 2011; Masud et al, 2016; Ngoumandjoka, 2014). This study, therefore seeks to contribute to the body of empirical knowledge on the social media usage, anxiety and academic achievement, particularly among senior secondary school students in Sokoto state, Nigeria. No study in Nigeria has investigated these three combined variables together to investigate students' achievement.

Statement of the Problem

According to Dinga, Mwaura and Ng'ang'a (2018), schools are established with the soul objective of imparting information and skills to those who go through them, hence behind this is the aim of improving good academic performance. Therefore, understanding the position elements of academic achievement of students is crucial to successful and effective intervention in order to bring quality education. However, over the past decade the performance of secondary school students in Sokoto has consistently been poor and unimpressive, it becomes a major point of concern as the achievement level of the students in senior secondary schools are considered low not impressive. Secondary school students face many challenges which interfere with their academic achievement; some of these intruding elements are anxiety and social-media usage among others.

The incessant failure by students in Senior Schools Certificate Examination (SSCE) in Secondary Schools in Sokoto State has been a matter of worry to parents, teachers, school administrators, government and all other stakeholders in the Education Sector in Sokoto state and in Nigeria as a whole. Although this condition could be attributed to various causes, it appears academic anxiety is at the root cause of these problems which compromise academic achievement, as deduced by Bala & Shaafiu (2016). One can therefore deduce that students who experience academic anxiety are likely to underachieve academically. The use of social media among students not only enables the activities of teaching and learning to be easily accessible, but has progressed beyond the borders of numerous technological advancements' user boundaries. Hence, Nayar (2018), postulated that social media is deemed to be an awesome means of supportive reciprocal learning as it promotes learning while it motivates learners; it makes learning convenient, as well as promoting easy leaning collaboration with virtual connectedness.

Social media tools offer informal learning convenience which enhances teaching and learning. The central focus of this study thus, is to investigate how anxiety and social media usage have affected students' achievement in Sokoto state, a northern part of

Nigeria. The current study has exercised a quantitative approach where data was collected through a questionnaire consisting of items adapted from well-reviewed researches.

Social Media

Social media is a broad categorical term for technologies that facilitate user sharing, content creation, and information exchange within online communities or networks. Specifically, social media platforms can be defined as technologies, “that allow the creation and exchange of user generated content,” (Kaplan & Haenlein, 2010, p. 61). This definition includes tools that allow users to easily create new content, including blogs (e.g., WordPress), micro-blogs (e.g., Twitter, Tumblr), video sharing (e.g., YouTube), and video conferencing (e.g., Google Hangouts, Skype, Facebook).

The Nigeria Education Sector, particularly the primary and secondary schools’ sector has not deployed the usage of the internet for teaching and learning in Nigerian schools; therefore, the only role of the social media known to the students is to utilize the media for chatting and making friends online. This has culminated into the misuse of the social media, thereby resulting to the poor academic achievement of the students due to excessive usage.

As a result of engagement with such services, social media users typically create highly interactional platforms through which individual students or student organizations can share ideas, co-create, modify, and discuss user generated content or previous content posted online. (Nayar (2018), considers social-media as an awe-inspiring supporting platform for common learning which provides educational inspiration and engagement with ease to learners, it strengthens the goal of learning with virtual connectedness, at the same time it provides easy access to the informal learning environment.

However, the high usage of social media has turned the present generation to be completely immersed in it. Social media usage does not only create stress in its users, but also causes unhappiness with life and a decrease in academic achievement. Thorisdottir et al. (2019), explored social media usage and signs of anxiety among adolescents and proposed that passive usage of social media was associated with greater anxiety symptoms for students and adults. Both active and passive extreme usage of social media by students is expected to develop into problematic usage. Previous studies have confirmed a close relationship between problematic social media usage and anxiety (Hussain and Griffiths, 2018; Wong et al., 2020). Against this background, this study investigated the effect of Anxiety, and Social-Media Usage on Academic Achievement of senior secondary students in Sokoto state.

Anxiety

According to Nail, et al (2015), anxiety symptoms are extremely common in childhood and adolescence and can negatively interfere with general well-being, social life, academic performance and even the development of social skills; anxiety is related to learners’ academic underachievement and low performance. They further stressed that anxiety could affect tasks such as getting assignments done, paying attention to given tasks, it could even disrupt an overall academic performance. Brady, Hard and Gross, (2018), in Texas, USA found out that a certain amount of anxiety could be beneficial to learning or productiveness. However, in Suresh’s (2016) study, he discovered that anxiety is more associated with lower performance than emotional reactions or responses.

When students experience anxiety, their mental capacity is used to produce and process worrying feelings, thus making it very difficult to focus on learning. Such disparity as enlightened by Gichohi (2019) can be exhausting for learners, which detracts from their learning abilities. In a more common sense, anxiety is characterized by symptoms, including emotional fright, moist palms, bad temper, high shivers, and uneasiness among others. It may be unpleasant, but it is often adaptive and, in its absence, one may have trouble as life becomes difficult to organize.

Academic Achievement

In Nigerian context, academic achievement is the students' performance in School, measured by grade reports, teachers' observation and self-perception. It is the outcome of the education and determine the level to which a student or institution has achieved their educational goals. In secondary level, a high academic achievement is necessary for the students as it is a clear demonstration of their understanding of concepts, skills ideas and knowledge acquired during the learning period.

Academic achievement indicates the knowledge and skills that a student acquired in school subjects (Fafunwa, 1974). Similarly, in Steinmayr et al (2017), Academic Achievement depicts performance results that indicate the level to which an individual has attained particular goals that were specified for instructional purposes, particularly in school. Similarly, Tuckman (2018), perceives academic achievement as a clear show of comprehension of skills, ideas, concepts and learning procedures.

Relationship between social media and Academic Achievement

Using social media to enhance the learning process can take a number of forms, target various skills, and utilize different tools. Social media tools have the potential to enhance learning activities by providing opportunities for students to participate in class work, especially introverted students who lack the confidence needed to engage in face-to-face activities. The use of social media on education can enhance learning, the use of social media tools can improve students' learning opportunities, and the tools can allow for real-time communication even outside the classroom, foster collaborative learning opportunities and also enhance creativities in education.

Students could access and watch educationally relevant videos or exchange information about what they have watched and learned, join online group discussions while this is going on. Several studies have been carried out by different researchers to assess how the use of social media impact students' academic achievement.

This study proposed and investigated the effect of anxiety and social-media usage on academic achievement among senior secondary school students in Sokoto state. The use of social media improves learning; according to Mushtaq and Benragdh, (2018), who found out in their study of social media usage that social media is perceived to be a convenient means for students in their lessons as they use them to enhance their learning processes, it aids effective communication and helps to receive school information with ease. However, researchers like: (Turel and Toraman, 2015. Masud et al., 2016, Iyitoglu and Celicoz, 2017), posited that excessive usage of the social media degrades educational achievement.

Students' Social Media Usage

The level at which students use social media has been recently investigated by a number of counsellors and student affairs specialists. It was found out that there is a negative relationship between social media usage and academic achievement. Yeap, et al. (2016), suggested that when students are immersed in internet usage, their academic activities decrease, their study habits are weakened and they are bound to be absent in classroom activities and may miss examinations.

Some studies have identified that excessive usage of the internet and social-media may lead to negative results in academic achievement and other social skills (Koshal and Gupter, 2016). This significant usage of social media may be associated with the increase in mobile devices, allowing current college students to access social media through phones, tablets, and other devices in addition to traditional computer usages, as such Newman (2016), postulated that when people prolong the time they spend on social-media, they have to reciprocate such time in other areas like areas of study and assignments. Social-media and new social media platforms (e.g., Snapchat and Instagram) are challenging Facebook in popularity and use among college students. Therefore, it is very likely that the frequency and length of time spent accessing social media is much greater.

Theoretical Framework

Test Anxiety Theory

Among the theories that explained test anxiety is: theories like the interference theory, model deficits theory and information processing theories. These theories have given insight into the impact that test anxiety has on students' educational achievement, (Hambree 1988; as cited in Bodas and Ollendick, 2005:69). The area that has much attention in the current study in investigating test anxiety is: worry and emotionality factors. Though, worry includes the cognitive feature of test anxiety, emotionality on the other hand impacts on psychological changes which occur while tests are being conducted, (Cohen, et al 2008).

Test anxiety is common among learners; it is a phenomenon that most students have to battle with. (Stoker and Perkin 2014), have earlier posited that test anxiety usually affects and impairs learning and affect exam performance; this problem therefore needs be tackled effectively in order to improve academic achievement in Nigerian secondary schools.

Social Media theory

Cognitive explanatory theory, as expounded by Jane Piaget in 1936 has given insight into behavioural activities. The theory posits that social media over usage is traceable to defective perception and an individual's intention to overlook internal and external difficulties by engaging in massive social networking platforms. It has been theorized that the use of social media, as predicted and believed by instructors, affect a wide range of behaviours of the student's academic achievement. These aspects include attention span, writing, face-to-face communication, homework, and critical thinking. Social media has become a significant pastime activity for many, allowing individuals to connect with one another online irrespective of time and space limitations (Kuss & Griffiths, 2017).

Conceptual Framework

This study investigated the relationship between: anxiety, social media usage, and academic achievement among secondary school students in Sokoto State, Nigeria. It focused on examining how anxiety and social media have impacted on the academic achievement of secondary school students in Sokoto, Nigeria.

Investigating the effect of social media usage on academic achievement of students is very important because this will provide an avenue for counsellors and stakeholders to implement methods that will help in enhancing academic achievement in schools; particularly Sokoto state. Investigating the moderating role of social media usage on the relationship between anxiety and academic achievement will go a long way in finding a solution to this misuse; as a result it will provide a means of curbing this abuse and enhance quality in educational achievement in Sokoto state.

The current study has developed the following research framework to aid the investigation of the relationship between: anxiety, social media usage, and educational achievement. The research framework as presented below depicts the direct impact of social media usage on anxiety and academic achievement of students in Sokoto state, Nigeria. The interactive effect of social media usage and test anxiety in this study suggested that both anxiety and social media usage decrease by 1.2% for each unit of social media usage, suggesting that a unit increase in social media usage will decrease academic achievement by 1.2%. This implied that there is a strong moderating effect of between social media usage and test anxiety among secondary school students in Sokoto state, Nigeria.

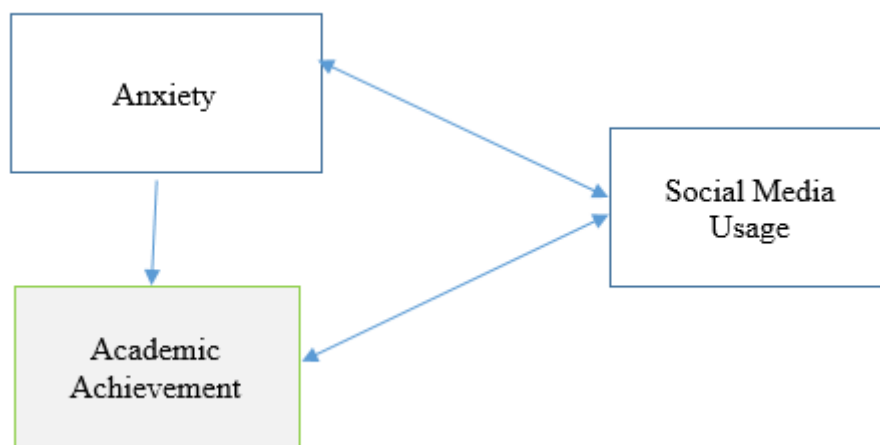


Figure 1: Conceptual Framework

Objectives

This study aimed at examining the relationship between social-media usage and anxiety on academic achievement among senior secondary school students in Sokoto state, Nigeria. The following research questions were set to address the research objectives:

Research Questions

RQ 1: Do social media usage relate to anxiety and academic achievement of senior secondary school students in Sokoto state?

RQ 2: What is the effect of social media usage on academic achievement among senior secondary school students in Sokoto state?

RQ 3: What is moderating effect of social media usage on the relationship between anxiety and academic achievement?

Methodology

Research Design

Research design is the general arrangement of study including four primary thoughts; the procedure, the framework, the inquiries of who and what to be considered and the tools utilized for gathering and analysis of data (Punch, 2014). In reference to the above, this study employed a quantitative approach as the study aimed at investigating the relationship between three variables (Anxiety, Social Media Usage and Academic Achievement). Quantitative research does three main things; it conceptualizes reality in terms of variables, it measures those variables and it studies relationship between those variables. In a quantitative research, measurement is a prominent step in the research process that occurs prior to data collection.

This study also planned and carried out a data collection and analysis using non-experimental correlational survey design. In this type of design, data are collected and analysed by the investigator in order to make inferences about a specific population and time. In correlational design groups of variables are compared at the same period of time. Thus, it constituted the basis for the variables under this study because it sought to seek evidence on the influence of one variable on the other (Coolican, 2009; Kaplan, 2008).

Therefore, this study considered survey and correlational design to investigate the relationship between Anxiety, Social – Media Usage and Academic Achievement among secondary school students in Sokoto State Nigeria, using a quantitative approach for data collection and analysis.

Sampling:

Sample in research study implies an area, part or part of the research population that is depictive of the whole populace, while sampling means the process of picking a depictive portion of the population for specific research. To decrease systematic predisposition, a sampling strategy needs to be created to boost representativeness (Burns and Grove, 2004).

There exist different techniques for example dimension resolution; which include utilizing a nose count for little dimension populaces, mimicking an example dimension of associated researches, using published tables and also applying formulas to compute sample size (Panah, 2014). However, a Stratified Random Sampling Procedure was adopted in this study to select the sample based on the contribution of each stratum to the research study's populace (Proportional). This was to guarantee fair representation of all the strata since all the teams were taking part in the exact same discovering problem as well and assessed on the very same conventional irrespective of their background.

Demographic Data

The demographic data for this study comprised of 400 respondents from public and private senior secondary schools in Sokoto state, Nigeria.

Data Collection

The collection of data for this study involved 400 respondents who were final year candidates in public and private secondary schools in Sokoto state. Under the supervision and assistance of the teachers, the candidates were assigned the questionnaire to complete. All the sections of the questionnaire were appropriately completed. i.e. Anxiety Test Scale, Social Media Test Scale, Questionnaire and Academic Achievement Scale (ATSSMUTSQ).

Anxiety Test Scale (ATS)

Test anxiety Scale (Spielberger et al., 1983) is one of the most generally utilized instruments for estimating test anxiousness in high school and also undergraduates. The ATS includes 20 objects examined on a 4-point Likert range (1= almost never ever, 2= sometimes, 3= often, 4= often), where respondents demonstrated how regularly they had actually come across the feedback to tests portrayed in objects, yielding an all-out examination stress and anxiety score running from at least 20 to a limitation of 80 points. The ATS yields 3 subscale ratings that gauge ATS-Total, ATS-Worry as well as ATS-Emotionality (sub-dimensions).

A psychometric detail on the ATS suggests sufficient test-retest reliability as well as internal consistency reliability. Test-retest dependability for the ATS total ratings, and the Fear, as well as Emotionality sub-scales, has actually extended from.72 to.88. The inner uniformity reliability as approximated by Cronbach's alpha for the ATS accumulation, fret sub-scale, as well as Emotionality sub-scale are.90,.84, as well as.80, individually. The ATS furthermore has actually shown enough validity to link the ATS and its sub-scales with other anxiousness measures, for example, Sarason's Examination Anxiety Scale (EAS; Sarason, 1978), gave proof of present validity as shown in Table 1 below:

Table 1: Anxiety Test Scale (Sub-Scales)

SN	Sub-constructs	Items	Initial Reliability
1	ATS-Worry	3, 4, 5, 6, 7, 14, 17, 20	0.80
2	ATS-Emotionality	2, 8, 9, 10, 11, 15, 16, 18	0.84
3	ATS-Total	1, 12, 13, 19	0.90

Social Media Usage Test Scale Questionnaire (SMUTSQ)

Social Media Usage Test Scale Questionnaire (SMUTSQ) (Şahin, 2018) is a 5-point Likert type scale which consists 29 items and composed with the 4 sub-dimensions, i.e., Virtual Tolerance (VT), Virtual Communication (VC) Virtual Problem (VP) and Virtual Information (VI). All of the objects in the scale are positive. The lowest point to be scored is 29 and the highest point is 145. The higher scores indicate that respondent perceives himself as a “social media addict”. The internal consistency reliability of the instrument by sub-dimension in this study is depicted in the table below:

Table 2: Social Media Usage Test Scale Questionnaire (SMUTSQ) (Sub-Scales)

SN	Sub-construct	Items	Initial Reliability
1	Virtual Tolerance	1, 2, 3, 4, 5,	0.81
2	Virtual Communication	6, 7, 8, 9, 10, 11, 12, 13, 14	0.81
3	Virtual Problem	15, 16, 17, 18, 19, 20, 21, 22, 23	0.86
4	Virtual Information	24, 25, 26, 27, 28, 29	0.82

The Rasch Measurement approach was used in this study to estimate the reliability of the Anxiety Test Scale and Social Media Test Scale Questionnaire (ATSSMUTSQ). The reliability coefficient of the scales in both person and objects were deemed to be relevant, based on the fact of (ATSSMUTSQ) having excellent standards, person, item as well as adequate internal consistency reliability (Linacre, 2019 & Aziz et al., 2013), the proof of validity is shown above.

Students’ Academic Achievement Scale (SAAS)

The students’ academic achievement in this study was measured by the students’ result in their senior secondary school examinations. The level of the achievement was determined using the established standard scoring guide and grading system of Nigerian secondary school. The students’ performance grading as provided by the West African Examinations Council (WAEC, 2018) are presented on table 3.

Table 3: Grading System in Nigeria for SSCE

Grades	Definition	Interpretation	Equivalent
A1	Excellent	75% - 100%	1
B2	Very good	70% - 74%	2
B3	Good	65% - 70%	3
C4	Credit	60%- 64%	4
C5	Credit	55% - 59%	5
C6	Credit	50% - 54%	6
D7	Pass	45% - 49%	7
E8	Pass	40% - 44%	8
F9	Fail	0% - 39%	9

Data Analysis

To examine the internal consistency reliability of the research instruments in this study, the data collected from the administration were used to conduct test of reliability of the instruments using Rasch Measurement procedure. The results of the analysis provided a psychometrics information on the suitability or otherwise of the research instruments.

The data analysis proposed based on the research questions were thus summarised in Table 4 below

Table 4: Data Analysis

SN	Research Questions	Data	Analys s
RQ1	Does social media usage relate to anxiety and academic achievement of senior secondary school students in Sokoto state?	Quantitative	SEM Smart PLS
RQ2	What is the effect of social media usage on academic achievement of senior secondary school students in Sokoto state?	Quantitative	SEM Smart PLS
RQ3	What is the moderating effect of social media usage on the relationship between anxiety and academic achievement of senior secondary school students in Sokoto state?	Quantitative	SEM Smart PLS

Research Results

The statistical description of the study’s constructs was examined using descriptive statistical analysis. Values or indices of the minimum score, maximum score, mean, and standard deviations were obtained and presented for all the dependent and independents constructs; all the constructs were measured in five points Likert scale. The result of the descriptive analysis is presented in Table 2.

Table 5: Discriminant Validity for the Constructs

Constructs	ANX	SMU	ACA
Anxiety	0.855		
Social Media Usage	-0.453	0.872	
Academic Achievement	-0.385	0.576	0.936

Research Question 1: Does social media usage relate to test anxiety and academic achievement of senior secondary school students in Sokoto state?

Table 6: Correlation Matrix among variables

Social Media	Anxiety: Worry Emotionality	Academic Achievement
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Social Media	1.00		
Anxiety	-0.80**	1.00	
Academic Achievement (AA)	-0.34**	-0.37**	1.00
Social media usage (SM) (ATS) worry	0.80		
(ATS) Emotionality	0.84		
Social media	1.00		

Correlational matrix for SM and AA, Anxiety and AA variables are both above diagonal **<0.01, this shows a positive correlation among the variables.

From Table 5, a correlation matrix was conducted to check for the relationship between social media usage and test anxiety, social media usage and academic achievement. The result of analysis indicated a negative and significant relationship between social media use and anxiety ($r = -0.80$; $p < 0.05$) and a negative and significant relationship between social media usage and academic achievement ($r = -0.34$; $p < 0.05$). In view of this result, it can be inferred that social media usage is associated with decreased level of anxiety and decreased level of academic achievement.

Research Question 2: what is the effect of social media usage on academic achievement among senior secondary school students in Sokoto state?

Table 7: Effect of Social media usage on Academic Achievement

	Std. Coefficient	T	p-value
SMU	-0.34	-7.202	0.000
Adjusted R2	0.113		
F-statistics	51.869		
p-value	0.00		

From the result presented in table 6, a linear regression analysis was conducted to examine the effect of social media usage on students' academic achievement. The dependent variable was academic achievement and the regression item was social media usage. The model indicated a good model fit ($F = 51.86$; $p = 0.00$). An inspection of the standardized estimates suggest that social media usage had a negative effect with academic achievement (standardized coefficient = -0.34 ; $t = -7.20$; $p\text{-value} = 0.00$). The negative effect of social media usage indicated that a unit increase in students' social media usage will decrease their academic achievement by 0.3% and vice versa.

Research Question 3: What is moderating effect of social media usage on the relationship between anxiety and academic achievement?

Table 8: Moderating effect of SMU on relationship between Anxiety and Performance

	Std. Coefficient	T	p-value
ANX	0.95	3.742	0.000
SMU	0.782	3.094	0.002
SMU*ANX	-1.28	-2.774	0.006
Adjusted R2	0.153		
F-statistics	25.067		
p-value	0.00		

Based on result presented in Table 7, a multiple regression analysis was conducted to examine the moderating effect of social media on the relationship between anxiety and academic achievement. The regression model indicated a good model fit ($F = 25.07$; p -value = 0.00). However, the coefficient of the interaction effect between social media usage and anxiety suggested that both anxiety and academic performance decrease by 1.2% for each unit of social media usage. This further suggested that a unit increase in social media usage will decrease students' anxiety and academic achievement by 1.2%. Thus, social media usage has a negative moderating effect on the relationship between anxiety and academic.

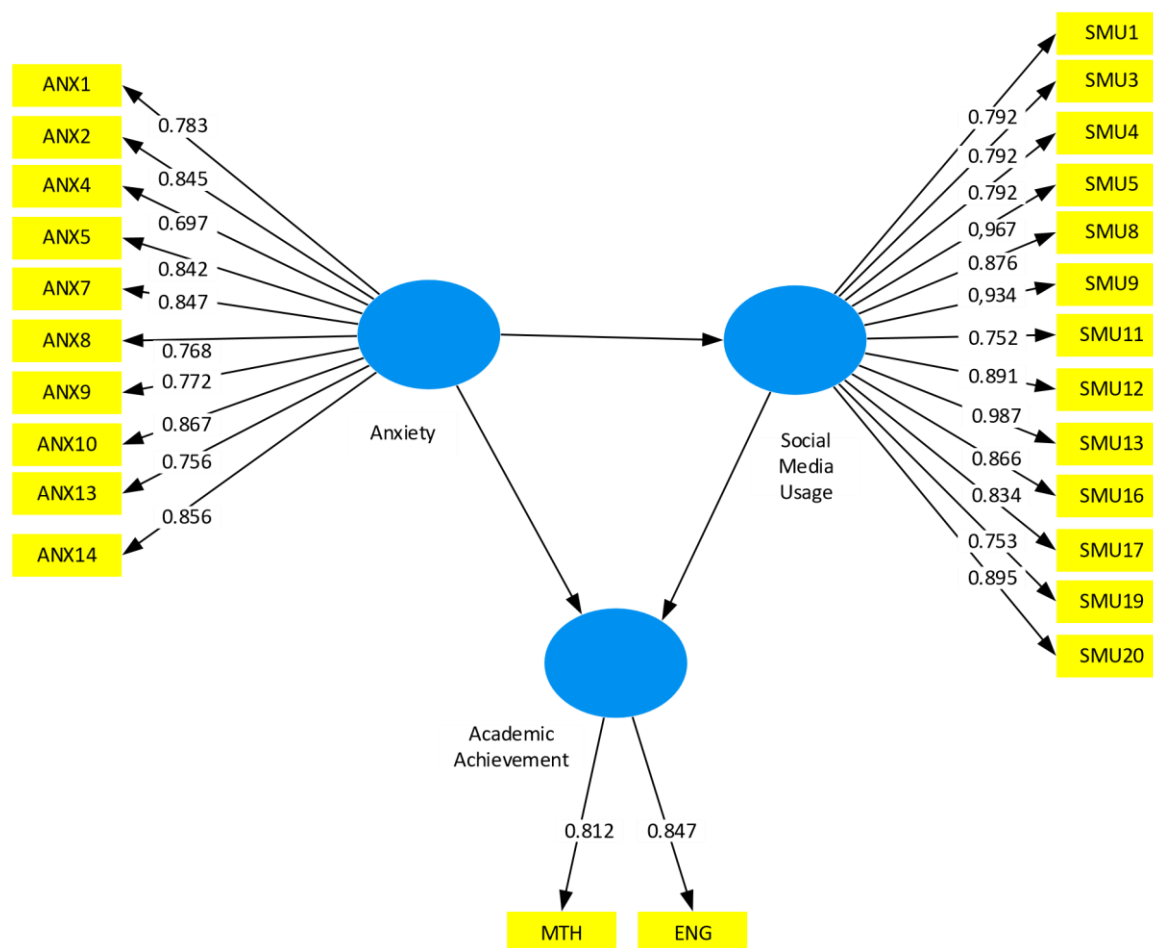


Figure 2: Measurement model for variables

The results of the analysis presented in Figure 2 revealed the obtained descriptive parameters of all the constructs. This result implied that the mean of each of the latent variables or construct of this study indicated that the average agreement of the respondents moderately agreed with the score of above-average point of 3.00. Similarly, the descriptive statistics mean all the values were close to mean. Thus, the respondents tended to moderately agree with all the statements indicating the existence or practicability of the concept in the relationship between Anxiety, Social Media Usage, and academic achievement.

Discussion

One of the main aims of this study was to investigate the effect of Social-Media Usage and Anxiety, on Academic Achievement of senior secondary students in Sokoto state. The results have shown that social-media usage negatively and significantly moderated

the relationship between anxiety and academic achievement, while anxiety has significant negative effect on the students' academic achievement.

On a theoretical position, social media is predicted to improve individual's decision-making, reading skills and socializing skills as a result of the high interaction level it possesses (Ainin, Naqshbandi, Mushtaq, 2018). Nigeria is among the technologically developing countries in the world today, where network connectivity in the last decade has advanced tremendously. Thus, the increase in internet connectivity has allowed learners new avenues for self-innovations and educational activities, while substituting the customary classroom and library research base to e- research and learning (Lahiry et al, 2019).

Nonetheless, Patel et al. (2016) believe that social media usage is responsible for problems like; restlessness, sorrow, nutritional issues, and sleeplessness. The effect of social media usage on academic achievement, according to Gilbert et al. (2018) is both negative and positive.

R Q 1: Does social media usage relate to anxiety and academic achievement of senior secondary school students in Sokoto state?

This study found out that people use social media in order to compensate for deficits in social skills or discomfort in face-to-face situations, and that individuals use social networking sites to find additional opportunities to interact with others, it also found evidences that suggested that excessive usage of social media such as Facebook is associated with a significant level of stress and anxiety which negatively affects the student's academic performance. Social media has become an integral part of the lives of young adults, and the increase in multi-platform usages, (The Nielsen Company, 2017), agrees that it is a perfect way to provide many avenues for people to dialogue globally.

In the same vein, (Ainin, Naqshbandi, Mushtaq, 2018) believe that when used for educational purposes like (online lectures, discussion forums, faculty member's announcements, educational games and many others), social media will play a positive role; they are of the opinion that social-media can improve the academic success of students if they are used correctly in the classroom environment.

However, it was found out in this study that uncontrolled usage of social media is associated with high level of stress and anxiety; (Azizi et al., 2019) are in support of the findings. They therefore further confirmed this by expressing that stress and anxiety emanates from situations when individuals experience unpleasant news and interactions that cause emotional disturbance. In turn, this emotional disturbance is considered to have negative impact on students' attention in classroom activities and overall performance.

However, several authors have opposed this position, arguing that stress and anxiety caused by social media are short-lived and may not necessarily follow student to school. On the other hand, Kolan and Dzandza (2018) indicated that majority of students do not use social media for academics, but rather for making new friends at the expense of learning.

Stein and Sareen, (2015) believe that Anxiety is a widely nervous condition of the mind that is linked to prospective difficult situation or threats, this means that when an individual is faced with anxiety, he or she may likely experience symptoms like fatigue, weakness exhaustion, physical pain and depression.

RQ 2: “How does social media usage affect academic achievement among senior secondary school students in Sokoto state”?

The idea of using social media for teaching and learning cannot be over emphasised, it has heightened the activities of learning, and it enables real time connection outside the school, strengthens collaboration activities and improves creativity

This study discovered that the use of social media plays a big role in the lives of learners and the learning itself, because it makes it easier for learners to access information, provide information and communicate through the use of social media. Lecturers and learners are connected to each other through its usage as it enables them to perform their teaching and learning activities easily. Social media does not only facilitate the learning methods but also has made it possible for the communication gap between learner-learned become narrowed down as the instruction is carried beyond the classroom boundaries with the adequate use of virtual learning environments. Breen,(2018). Mushtaq and Benraragdha (2019) have predicted a great potential in the usage of social media to improve learning.

However, empirical evidence has shown that increased usage of social media, especially usage that deviate from learning, negatively affects study habits and productivity. Uncontrolled usage of social media reduces the study time, which has a negative effect on the academic performance of students. Also, as people who spend many hours around the clock using social media do not have enough rest, they suffer from exhaustion and sleep disruption; these can have a negative impact on their attentiveness and learning.

Social media is predicted to advance individual’s decision-making, reading skills and socializing skills because it has a high communication level. Similarly, Ainin, Naqshbandi & Mushtaq (2018), have opined that these skills are considered as the vital components that make up improved academic achievement. Thus, individuals who frequently use social media are more likely to perform better in classroom activities, particularly those that have to do with social expression, argument, writing skills, among others.

RQ 3: What is the moderating effect of social media usage on the relationship between anxiety and academic achievement?

Researchers the world over have found out that the fear of failing an exam has made some individuals to become so anxious, that fear, being experienced has become a motivating factor for them to work harder in order to achieve. Reviewing test anxiety and its impact on learning outcomes has a long history; for example, (Mandler & Sarason 1952, Spielberg 1962), believe that: Great anxiety from the fear of failure has been revealed to have a positive influence on academic achievement in high ability students, it provides them the determination to perform better; which may have been the motivation for these students. However, untreated anxiety in adolescents and young adults could result to several behavioural problems such as, physical, and mental difficulties (Mahmoud, Staten, Lennie, & Hall, 2015), uncontrolled usage of social media has a similar effect on individuals, as it could have a negative impact in spite of its usefulness, Gilbert et al. (2018).

Murphy and Gross (2017) have demonstrated that online network could make it very difficult for individuals to recognise useful messages from other various connections that have been created from web-based shared networks. If there is such reduction in the

number of significant connections, individuals might become intimidated and become afraid of the development of important interaction and communication. Anxiety and sleeping disorder are obviously related to usage of social media.

Put differently, when anxiety is experienced by students, their mental capacity is used to generate and process worrisome thoughts, thus making it extremely difficult to focus on learning. Such imbalance as explained by Gichohi (2019) can be exhausting for students, which detracts them from their learning abilities. In a broader sense, anxiety is characterized by symptoms, including emotional fright, moist palms, irritability, high palpitations, and tenseness among others. Students experiencing these symptoms are more likely to experience decline in concentration levels. Thus, anxiety can undeniably impact negatively on students' academic performance if not attended to (Von der Embse et al., 2018).

Findings

Findings in this study imply that the negative effect of anxiety on academic performance is obvious, coupled with the introduction of negative effect of social media usage. The result showed that students have an uneasy upsetting feeling during final examinations, and thinking about the grade they get in a course interferes with work on tests. It also showed that during exams students find themselves wondering whether they will ever get through school as the harder they work at taking a test, the more confused they get. They also feel jittery when taking an important test, even when they are well prepared for a test, they still feel very anxious about it. Most students also agree that they start feeling very uneasy just before getting a test paper back and that during important exams they are so tense that they start developing stomach upset.

Mohammed, and Muhammad (2017), found in their study, that employed effects of test anxiety on university students' academic achievement in Northwest University, Kano, Nigeria. They recognized that students with intensified levels of anxiety recorded lower grades in comparison to their colleagues who attained higher grades with reasonable levels of anxiety. It is therefore obvious that academic anxiety has a relationship with academic achievement of university students.

Education is the considered to be the light that illuminates the world; no nation will thrive if its educational system is poor. It is the ultimate goal of every individual to attain education, in the same vein, (Aloka et al, 2018) sees academic achievement as the educational system's success in directing and attending to individual requirements in education. Hence, understanding the position elements of academic performance of students is crucial to successful and effective intervention in order to bring about quality education. Because of the significant relationship between anxiety and educational achievement, it is very important to help secondary school students to manage their stress. In order to do so, this study recommends that students should maintain a healthy and stress less life style during the period of learning. Extra mural lessons, academic counselling, tutorials, extra instructions, and many others are some of the resources that stake-holders in education should explore in order to render assistance to secondary students with anxiety problems after assessing their needs.

Implications

Implication: for Practitioners and Guidance Counsellors, the main aim of this study was to find out how anxiety and social-media usage effect the academic achievement of senior secondary school students in Sokoto state, Nigeria. The results have shown that social media usage has negatively and significantly affected the relationship between anxiety and academic achievement, while social-media usage significantly moderated the effect of academic achievement. Anxiety has significant negative effect on the students' academic achievement; therefore, the findings of this study have important practical implications for professionals and practitioners in the field of guidance and counselling, particularly, to the educational institutions in Nigeria.

Thus: The study established justifiable evidence that anxiety has a significant negative effect on students' academic achievement. Thus, all practitioners in guidance counselling can utilize anxiety control strategies in their counselling to help students increase their academic performance.

The level at which students use social media has been recently investigated by a number of counsellors and student affairs specialists; therefore investigating the usage of Social-Media alongside Anxiety in relation to students' academic achievement is crucial and is believed that it will go a long way in addressing students' poor academic performance in secondary schools. The study contributes to the existing body of knowledge in regards to the multifaceted effect of anxiety, social-media usage in secondary school students' academic achievement.

Considering how significantly anxiety negatively effects students' academic achievement, further study on types of anxiety and control techniques need to be carried out. This will give better understanding and a deep knowledge of types of anxiety and various control techniques; therefore there is need for more studies on effective usage of social media for enhancement of academic achievement of students at various levels of education in Sokoto stat, Nigeria.

Limitations

The limitations of this study are various; first the study used the students' achievement test to examine academic achievement, other means of obtaining academic achievement results should be explored, like interview, computer-based testing and others. Secondly only senior secondary school students were sampled; therefore, it is suggested that junior secondary school students and other level of students should also be examined in order to achieve a wider result; also, in future research should be conducted in other states in Nigeria using same variables. There are also other variables that could affect academic achievement other than anxiety and social media usage, for example, student's socio-economic status, personality traits, learner's wellbeing and other factors; as such, current findings may change if other variables and study groups are examined. Therefore, future research should focus on such other variables.

Conclusion

The study aimed at investigating the relationship between: anxiety, social media usage, and academic performance among secondary school students in Sokoto State, Nigeria. The study focused on (a) Examining the relationship between: anxiety, social media usage, and academic achievement among senior secondary school students in Sokoto

state; (b) Investigating the effect of social media usage on the relationship between anxiety and academic achievement among senior secondary school students in Sokoto state; and (c) Investigating the moderating role of social media usage on the relationship between anxiety and academic achievement of senior secondary school students in Sokoto state.

“Test anxiety and its impact on academic achievement and education generally varies depending on the person, some students agreed that they start feeling very uneasy just before getting a test paper back and that during important exams they are tensed up that they start developing stomach upset. Hence, Ibukun Adeoye-Agboola (2015) who studied “The Relationship Between Anxiety and Academic Performance of Postgraduate International Students in a British University, using: A Cross-Sectional Quantitative Design” revealed that, anxiety can affect international students on their academic performance through their finances, career aspiration and workload. Another study on “The relationship between study anxiety and academic performance among English students” conducted by Weda & Sakti (2018) revealed that, anxiety is negatively related to academic performance with the participants’ anxiety scores. Hence, findings imply that there is a significant relationship between high level anxiety and low academic performance among English students at State University of Makassar, Indonesia.

As earlier speculated, the effect of social media usage on academic achievement, according to Gilbert et al. (2018), could be both negative and positive. This was further confirmed by the findings of Azizi et al. (2019), who studied “The relationship between social networking addiction and academic performance in Iranian students of medical sciences: confirmed and found that a negative and significant correlation exists between social networking addiction and students’ academic performance, this implies that, an increase in the excessive usage of social networks weakens academic performance. This is in line with the findings of Kolan (2018), who studied the “Effect of Social Media on Academic Performance of Students in Ghanaian Universities : A Case Study of University of Ghana , Legon” he discovered that, in spite of the benefits that students derive from social media networks, such as exchanging information, making friends, participating in group discussions from near and far among others, there is bound to be distraction of attention caused by the use of social media which could have serious consequences on the academic life of students.

Based on the findings and discussions of this study, it could be concluded that anxiety and social media usage negatively and significantly affect students’ academic performance; the study also showed that social media usage negatively moderated the relationship between anxiety and academic achievement among secondary school students in Sokoto state.

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