

Constraints and Enhancement Measures in the use of Social Media Platforms in Teaching and Learning of Agricultural Education in Tertiary Institutions in Enugu State, Nigeria

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Abstract

The study determined the constraints and enhancement measures in the use of social media platforms in teaching and learning of agricultural education in tertiary institutions in Enugu State, Nigeria. The study was guided by two specific purposes and two research questions. A descriptive survey research design was used and it was conducted in Government owned tertiary institutions in Enugu state that offer Agricultural Education programme. A total population of 212 which comprised of lecturers and students teaching and learning Agricultural Education in the three tertiary institutions were studied. The instrument for data collection was questionnaire and it was face validated by three experts. Data collection was carried out by the researchers. Mean, standard deviation and t-test statistic were used to analyze the data collected. The findings revealed the following constraints in the use of social media platforms in teaching and learning agricultural education to include inadequate computer facilities in the classrooms and laboratories, irregular power supply, high cost of resources to design and develop social media package among others. The study also identified the following enhancement measures in the use of social media in teaching and learning of agricultural education to include training and retraining of agricultural lecturers and instructors on ICT and social media skills, employment of technical staff, provision of standby generators among others. Based on the findings, it was concluded that the use of social media platforms in teaching and learning agricultural education in tertiary institutions is characterized with lot of constraints which hinders its effectiveness, but these challenges can be overcome by adopting good enhancement measures identified in this study. The study recommended that Nigeria government through the Minister for Digital Economy should provide adequate ICT and social media equipment to schools, strong internet connectivity among others

Keywords: Social Media, Agricultural Education, Teaching, and Learning

Introduction

Agricultural education is one of the educational programmes offered in tertiary institutions- colleges of education and universities. Onu, Ugwuoke and Asogwa (2020) referred agricultural education as an educational programme that is structured to train people about animal

and crop production and their processing, storage, marketing and distribution of the products. Otu, Udo, Umoh and Umoh (2013) defined agricultural education as a system of education which prepares learners to become teachers of agriculture, extension workers and other professionals in areas that need broad knowledge of agriculture. The authors further opined that agricultural education at any level aimed at imparting relevant values, knowledge and skills to the recipients so as to better their lives and make them useful to the society at large. Bassey, Onu, Nwoye and Okwo (2021) noted that agricultural education programme can only be functional if the programme is capable of building in students with relevant attitudes, knowledge and 21st century skills needed for gainful employment in agriculture and agricultural-related occupations. This can be achieved through quality teaching and learning of agricultural education in tertiary institutions.

Teaching is an interactive process between the teacher and the students. Teaching is a set of events, outside the learners which are designed to support internal process of learning (Sequeira, 2017). As a teacher, you may teach, train or instruct others, all these activities help to bring a desire change in the learners. The criteria for measuring good teaching are the amount and the quality of learning the students get (Shahida in Ismail, 2013). Learning on the other hand is the process of bringing desire changes in individuals by developing a new skill, understanding a scientific law, changing an attitude and so on (Sequeira, 2017). The author further stated that the change in behavior which result from learning is not incidental or natural rather it is a relatively permanent change, usually brought about intentionally. Teaching and learning process can be referred as the transformation process of knowledge from teachers to students (Afzal & Md-Abul, 2021). The authors further stated that teaching and learning process deals with the combination of various elements within the process where an educator identifies and establish the learning objectives and develop teaching resources and implement the teaching and learning strategy. Learning is a cardinal factor that a teacher must consider while teaching students. Learners in the 21st century learn effectively when they are actively involved in the teaching and learning processes, and also, when they are being taught with digital technology such as information and communication technology (ICT) and social media platforms in the teaching processes.

Social media according Kaplan and Haenlein (2020) can be referred to as a group of Internet-based applications that build on the ideological and technological foundation of Web 2.0, and that allow the creation and exchange of user-generated content. Social media is the platforms that enable the interactive web by engaging users to participate in, comment on and create content as means of communicating with their social graph, other users and the public which have content formats including text, video, photographs, audio, PDF and PowerPoint. (Cohen in Harisa, 2016). It can be said that social media is the tools, services, and communication facilitating connection between peers with common interests (Harisa, 2016). The evolution of social media has cut across all facets of society with its positive and negative impacts. The authors further noted that social media has transformed and impacted on communication, learning, research and education in general (Mingle & Adams, 2015).

Tertiary institution students use social media for different reasons which include connecting to friends, for academic purposes, to exchange pictures and videos, for personal information and so on (Owan & Robert, 2019). The authors also stated that with the internet, a number of web technologies emerged, and one technology that is making waves with regard to information sharing and communication are social media networks. Negussie and Ketema (2014) indicated that most students use their personal laptops and smart phones to access social network sites such as Facebook. Arop, Agunwa and Owan (2019) asserted that with the support of the internet, such social media channels as Facebook, Twitter, Instagram, WhatsApp, Eskimi, WeChat, Google-talk, Google+, Skype and others are hosted and provided. For the purpose of this study, the emphasis was based on 10 social media including Facebook, WhatsApp, Instagram, Twitter, WeChat, Skype, Snapchat, Eskimi, Telegram, and YouTube.

According to one of the early researchers in the field of social media in teaching Agriculture, Smeaton and Davis (2014) expresses that social media should be used in teaching and learning of Agriculture. According to the author, social media provides the only serious hope for accommodation of individual differences in subject-matter learning. In addition to the accommodation of individual differences, social media provides a means of effective management of classroom instruction by active engagement, using computer instructional programmes. Today, there are numerous social media available to teach both theoretical and practical classroom instructions. In agriculture, social media are used in teaching animal husbandry, pest control, crop science as well as serve as tools in solving numerical and quantitative analysis (Smeaton and Davis, 2014). The study conducted by Anyamene et' al. (2012) revealed that the use of social media Networks improved the performance of students in Agriculture. According to Sombunsukho (2012), the incorporation of still pictures, moving images (video), and audio help make learning interesting and enjoyable, and also make the students understand the lesson and remember the content of learning more. Smeaton and Davis (2014) reported that social media networks significantly enhanced the retentive performance of students taught Pest control than those taught with conventional method. According to Sombunsukho (2012), the use of SM in classroom instruction has been found to increase learning achievement since students taught with SM Networks perform better than those taught by traditional instruction. Social Media helps students learn by themselves, and reduce the burden of teaching. According to Tekbiyik, Konur and Pirasa (2018), one of the reasons for the use of social media in teaching and learning in agricultural education is because of its capability to provide text, graph, audio, video, pressure, animation and simulation in the same media to students. Presentation of information in a variety of media can enhance the learning process.

In spite of the numerous benefits of using social media in teaching and learning agricultural education in tertiary institutions, there are a lot of constraints limiting its effectiveness especially in Nigeria and Enugu State in particular. There is need to identify these challenges or constraints hindering the effective use of social media in teaching and learning

agricultural education in tertiary institutions. As the saying goes, “a problem known, is half solved”. Identifying these challenges and their enhancement measures will enhance better and efficient utilization of social media platform in teaching and learning agricultural education in tertiary institutions. Hence, this study determined the constraints and enhancement measures in the use of social media platforms in teaching and learning of agricultural education in tertiary institutions in Enugu State, Nigeria.

Purpose of the Study

The general purpose of this study was to investigate the constraints and enhancement measures in the use of social media platforms in teaching and learning of agricultural education in tertiary institutions in Enugu State, Nigeria. Specifically, the study determined the:

1. constraints to effective utilization of the various social media platforms in teaching and learning of agricultural education in tertiary institutions in Enugu State, Nigeria.
2. The strategies for enhancing the utilization of social media platforms in teaching and learning of agricultural education in Tertiary Institutions in Enugu State, Nigeria.

Research Questions

The following research questions guided the study.

1. What are the constraints to effective utilization of the available social media platforms in teaching and learning of agricultural education in tertiary and institutions in Enugu State, Nigeria?
2. What are the strategies for enhancing the utilization of social media platforms in teaching and learning of agricultural education in tertiary institution in Enugu State, Nigeria?

Methodology

The study adopted descriptive survey research design. The study was conducted in Government - owned tertiary institutions in Enugu State that offer Agricultural Education. These institutions include University of Nigeria, Nsukka (UNN), Enugu State University of Science and Technology (ESUT), Federal college of Education Eha-Amufu, Enugu State Colleges of Education (Technical), Enugu State. The population for the study was a total of 212, this comprised agricultural education lecturers and students currently teaching and learning in the four tertiary institution that are offers Agricultural Education in Enugu State Nigeria. The respondents made up of 22 lecturers and 70 undergraduate students in the Agricultural Education in University of Nigeria Nsukka (UNN); 3 lecturers and 15 undergraduate students of Agricultural Education in Enugu University of Science and Technology (ESUT); 7 lecturers and 60 undergraduate students of Agricultural Education in Federal College of Education Eha- Amufu; and 5 lecturers and 30

undergraduates of College of Education (Technical), Enugu. There was no sampling since the population is manageable, the researcher used the entire population.

The instrument for data collection was structured questionnaire designed by the researcher. The questionnaire contained 23 items and were used to collect data on the constraints to effective utilization of the various social media platforms in teaching and learning of agricultural education in Tertiary Institutions and the strategies for enhancing the utilization of social media platforms in teaching and learning of agricultural education in Tertiary Institutions in Enugu State, Nigeria. The instruments were structured into four-point response options of Strongly Agree (SA), Agree (A), Strongly Disagree (SD) and Disagree (D) with assigned weights of 4, 3, 2, and 1 respectively. The instrument was subjected to face validation by three experts; two from Computer and Robotics Education of the University of Nigeria, Nsukka and one from the Department of Agricultural Education of same University. Reliability of the instrument was determined using Cronbach Alpha method. 38 copies of the validated instrument were administered to lecturers and students of Alvan Ikoku Federal College of Education Owerri, Imo State. The completed instruments were collected and analyzed to determine the reliability of the instruments for the study. The co-efficient yielded 0.84% and 0.76% for the respective research questions and the overall reliability of 0.80%. This shows that the instrument is highly reliable and can be effectively used to collect the desired data.

The instrument was administered and collected personally by the researcher with the help of four research assistants. A total of 212 questionnaires were given out, 200 copies of the questionnaires were retrieved and used for data analysis. Data collected were analyzed using mean and standard deviation. Mean was used to answer the research questions while standard deviation was used to determine how close or far the respondents are to the mean. All the data analyses were carried out with the help of statistical package for Social Sciences (SPSS) 21.0 version).

Presentation of Results

Research Question 1: What are the constraints to effective utilization of various social media platforms in teaching and learning of agricultural education?

Table 1: Mean and Standard Deviation of the Constraints to Effective Utilization of various Social Media Platforms in Teaching and Learning of Agricultural Education

S/N	Item statement	$\bar{X}$	SD	Remark
1	Poor competency level of teachers in manipulating SM packages.	3.27	0.9	A
2	Irregular power supply for use of SM package.	3.46	0.80	A

3	Inadequate computer facilities in the classrooms and laboratories.	3.54	0.62	A
4	Poor access to computers by teachers and students.	3.04	0.83	A
5	High cost of resources to design and develop SM package for teaching and learning agricultural education.	3.40	0.75	A
6	Problem of technical support staff in tertiary education.	2.99	0.79	A
7	Poor funding for development of SM package and maintenance of computer systems.	3.07	0.93	A
8	Poor motivation of teachers to effectively use of SM for teaching and learning of agriculture.	3.32	0.75	A
9	Fear of being challenged by students in the use of modern technology.	2.57	1.00	A
10	Poor acceptability of SM as instructional media among students.	2.90	0.94	A
11	Poor Network service provider.	3.29	0.89	A
12	Insufficient power supply.	3.31	0.69	A
13	High cost of data for social media usage.	3.25	0.92	A
	Grand Mean and Standard deviation	3.18	0.56	A

Key: Key: SA = *Strongly Agree*, A= *Agree* n = 200

Table 1 presented the mean ratings of the constraints to effective utilization of various social media platforms in teaching and learning of agricultural education. From the table, all the items had mean responses of 2.57 and above which were above the cut of point of 2.50, this indicated that they are the constraints to effective utilization of various social media platforms in teaching and learning of agricultural education. All the items had a standard deviation which ranges from 0.52 to 1.00, showing that the respondents are not far from the mean and were close to one another in their opinions regarding the constraints to effective utilization of various social media platforms in teaching and learning of agricultural education.

Research Question 2: What are the strategies for enhancing the utilization of social media platforms in teaching and learning of agricultural education?

Table 2: Mean and Standard Deviation of the Strategies for Enhancing the Utilization of Social Media Platforms in Teaching and Learning of Agricultural Education

S/N	Item statement	$\bar{X}$	SD	Remark
1	Provision of stand by generators	3.68	0.53	SA
2	Training and retraining of teachers on ICT skills required for utilization of social media (SM) in the classroom.	3.70	0.55	SA

3	Procurement of adequate computer facilities for teaching and learning by government, NGO, PTA or management	3.51	0.63	SA
4	Employment of technical support staff that will provide technical support for use of SM.	3.73	0.53	SA
5	Adequate provision of training of staff in the design and development of SM packages.	3.51	0.70	SA
6	Provide lecturers with incentives to motivate them in teaching with SM packages.	3.24	0.74	SA
7	Granting lecturer and student frequent access to computer laboratories and facilities	3.54	0.57	SA
8	Provision of free internet facilities for use by the lecturers and students and also management.	3.59	0.60	SA
9	Mandating lecturers of large classes to migrate to SM based instructional delivery method	3.08	0.95	A
10	Creating awareness on the importance of use SM among staff and students.	3.45	0.67	A
Key: SA = Strongly Agree, A= Agree		n = 200		

Table 2 presented the mean ratings of the strategies for enhancing the utilization of various social media platforms in teaching and learning of agricultural education. From the table, all the items had mean responses of 3.08 and above which were far above the cut of point of 2.50, this showed that the respondents agreed that they are the strategies for enhancing the utilization of various social media platforms in teaching and learning of agricultural education. Furthermore, All the items had a standard deviation which ranges from 0.53 to 0.95. This indicated that the respondents are not far from the mean and were close to one another in their opinions on the strategies for enhancing the utilization of various social media platforms in teaching and learning of agricultural education in tertiary institutions.

Discussion of Findings

Constraints to effective utilization of the various social media platforms in teaching and learning of Agricultural education in tertiary Institutions in Enugu State, Nigeria.

The findings on the constraints for effective utilization of social media for teaching and learning revealed the constraints to include inadequate computer facilities in the classrooms and laboratories, poor competency level of teachers in manipulating social media packages; irregular power supply for use of social media package; poor access to computers by teachers and students; high cost of resources to design and develop social media packages for teaching and learning agricultural education; problem of technical support staff in tertiary education; poor funding for development of social media package and maintenance of computer systems;

Poor motivation of teachers to effectively use of social media platforms for teaching and learning of agriculture; fear of being challenged by students in the use of modern technology; poor network service; insufficient power supply; high cost of data for social media usage among others.

The findings of this study are in agreement with Ekere, Akanwa and Benson (2015), who found that one shortfalls of the use social media for instructional delivery, is high cost of developing social media. The authors further stated that poor internet connectivity is a hinderance to effective utilization of social media for teaching and learning. In addition, Nwangwu (2011) observed that lack of technical support and non-replacement of damaged ICT tools constitutes hinderance to the use of social media for teaching and learning in tertiary institutions. In Nigerian tertiary institutions, it has been observed that the use of SM networks in teaching and learning continue to suffer setbacks as a result of inadequate number of computers, poor internet connectivity, power instability, limited access to computers, shortage of teachers who can comfortably teach with SM networks, cost of facilities and resources, hardware hazards, among others (Saini, 2014).

Strategies for enhancing the utilization of social media platforms in teaching and learning of agricultural education in Tertiary Institutions in Enugu State, Nigeria.

The study found out the strategies for enhancing the effective utilization of social media for teaching and learning agricultural education in tertiary institutions to include: provision of standby generators; training and retraining of teachers on ICT skills required for utilization of social media (SM) in the classroom teaching and learning; procurement of adequate computer facilities for teaching and learning by government; providing lecturers with incentives to motivate them teach with social media platforms; provision of free internet facilities for use by the lecturers and students; creating awareness on the importance of use SM among staff and students and so on.

The findings are in conformity with the findings of Ekere, Akanwa and Benson (2015), who stated that today's public schools are compelled to provide students with technology competency skills that will allow them to supplement their learning through online sources and succeed in an ever-increasing technological workplace. The authors further expressed that one of the major ways of enhancing the utilization of social media use in schools is by adequately funding technology implementation in schools. Ogwu and Nwangwu (2010) recommended that life-long ICT capacity building training should be organized and sponsored by the government in form of workshops and seminars at least thrice a year. The findings are also in line with the findings of Smeaton and Davis (2014), who maintained that for effective utilization of social media in teaching and learning requires adequate computer facilities and strong internet connections as well as training and retraining of teachers of agriculture on the use of modern

technology such as social media platforms in teaching and learning agricultural education in tertiary institutions.

Conclusion

The study investigated the constraints and enhancement measures of the use of social media platforms in teaching and learning of agricultural education in tertiary institutions in Enugu State, Nigeria. The study found out the following constraints hindering the effective utilizations of social media platforms in teaching and learning agricultural education to include inadequate computer facilities in the classrooms and laboratories, irregular power supply, high cost of resources to design and develop social media packages among others. The study further identified the following enhancement measures or strategies for enhancing the effective use of social media platforms in teaching and learning agricultural education to include: training and retraining of teachers on ICT skills required for utilization of social media (SM) in the classroom; employment of technical support staff that will provide technical support for use of SM; provision of standby generators, provision of adequate internet facilities among others.

Based on the findings, it was concluded that the use of social media platforms in teaching and learning agricultural education in tertiary institutions is characterized with lot of constraints which hinders its effectiveness, but these challenges can be overcome by adopting good enhancement measures identified in this study.

Recommendations

The on the findings, the study recommended the following:

1. The government through the Minister of Digital Economy should make ICT equipment such as efficient network, computers, among others available, affordable and accessible to tertiary institutions for use.
2. The federal and state ministries of education should employ sufficient technical support staff that will provide technical support for use of social media platforms and other digital technology in teaching and learning.
3. The federal government through TETFUND should provide standby generators and other infrastructure to tackle the problem of inconsistent power supply in order to support the use of social media platforms in teaching and learning.
4. The tertiary institutions administrators should organize workshops to train and retrain tertiary institutions teachers on the use of social media platforms and other digital technology in teaching and learning.

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