# SOCIAL MEDIA AS TEACHING/LEARNING TOOLS IN NIGERIAN TERTIARY INSTITUTIONS: CONTRIBUTORY DRIVER TO 21<sup>ST</sup> CENTURY INCLUSIVE EDUCATION EFFORTS

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## Abstract

This study verified students' perceptions on whether utilisation of the social media tools for teaching/learning can possibly contribute towards driving 21<sup>st</sup> century inclusive education efforts in Nigerian universities. A descriptive survey design was adopted for the study. Study's population was made up of all 392 students of Educational Technology unit of the Department of Curriculum and Teaching in the Faculty of Education in the University of Calabar. Sample was drawn through purposive sampling procedures with a sample of 68 respondents drawn for the study. A 15-item questionnaire tagged "Learners' Perceptions of social media as Teaching/Learning Tools and Contributions to 21<sup>st</sup> century Inclusive Education Efforts' Questionnaire" (LPSMTLTCIEEQ) was utilized to collect data. Using Cronbach Alpha, the reliability estimate of the instrument was 0.82. Data analysis was achieved using frequencies and percentages. The findings revealed that students had favourable perceptions concerning utilisation of the social media tools for teaching/learning as a vital contributor towards driving 21<sup>st</sup> century inclusive education efforts. Recommendations included that; lecturers should incorporate use of social media tools for teaching-learning processes.

Keywords: Social Media, Teaching-learning, 21st Century Education, Tertiary Institution, Nigeria.

#### 1. Introduction

Education for every living being in contemporary times is a necessity which is borne out of the everchanging dynamics of our daily livelihoods. Globalization, technology, and knowledge/information explosion are some few reasons for the increasing need of everyone being educated in one form or the other. It is based on the necessity for everyone to be educated that the concept of inclusive education was borne. According to United Nations Educational, Scientific and Cultural Organisation (UNESCO) (2009), inclusive education is an education strategy concerned with minimizing, reducing, or removing barriers to accessibility, participation and learning for every human being, especially for those who appear to have been socially discriminated or vulnerable due to issues of disability, gender, poverty, ethnicity, religion, or any other perceived inequalities. For Okoye and Adirika (2019), it implies a total educational effort focused on ensuring an adequate inculcation of requisite knowledge through qualitative learning to everyone in spite of any known or imagined disability. Thus, the concept can be viewed as the philosophy and practice of educating everyone including those with any perceived form of inequality or disability in general educational settings.

In Nigeria, there have been certain efforts on the part of government to ensure that the inclusive educational stride is effectively implemented. Within the country, inclusive education as a policy has been adopted with guidelines application on three distinct groups i.e., the disabled, disadvantaged, and the gifted/talented (Federal Republic of Nigeria, 2008). Also, there are certain national legislations such as the "reauthorizations of the Individuals with Disabilities Education Act of 1997 and 2004" (Afolabi, et al, 2015). These legislations give learners with special educational needs full legal backing to receive education in a least restrictive environment with full involvement of their guardians in their placement. Other legal frameworks concerning inclusive education are the "Education for Persons with Special Educational Needs Act 2004 and Disability Act 2005" which serve to legally enforce principals and teachers in secondary schools to accommodate special need learners in their schools (Afolabi *et al.*, 2015).

From Ajuwon (2008), there were some identified government policy interventions targeted at inclusive education in the country. They include the enactment of three critical activities which were; (i) signing the UNESCO National Education Strategy (UNESS) for Nigeria (2006-2015) as a product of a two-day UNESCO/Federal Ministry of Education stakeholders' round table meeting; (ii) launching the Community Accountability and Transparent Initiatives (CATTI), and; (iii) publishing a national plan with respect to the "Education Sector Situation Analysis" which revealed the extent of dysfunction in the Nigerian education system. Despite these laudable achievements, some reports appear to reveal that there are issues concerning the effective implementation of inclusive education in the country.

Oladele, et al, (2016) discovered that teachers' knowledge of inclusive education practices in schools was very low. Idika and Eke (2017) reported that non-specialist lecturers were found to have very limited knowledge and application of assessment methods in all-inclusive classes in universities thus making the learners with special needs have issues of being poorly assessed. Onukwufor and Martins (2017) observed that visually impaired learners in schools faced multitude issues which included unadaptable school

environment, communication barriers, and inadequacy of trained personnel. Adeniyi-Egbeola and Tunde-Awe (2018) found out that most teachers of schools in northern Nigeria were unaware of the implementation of inclusive education in the country. Okoye and Adirika (2019) revealed that visually impaired undergraduates in Nigerian universities faced challenges of inadequate facilities and dearth of instructional materials.

At tertiary level of education in Nigeria, based on the categories of learners targeted for inclusive education, they not only include youth and adults with visual, orthopedic, hearing impairment, speech/emotional disorders and mentally imbalanced challenges but also those with learning and multiple disabilities (Oladele *et al.*, 2016). Thus, schools are daily faced with the challenge to cater for an ever-increasingly diverse learner population of various needs. The implication therefore is that school systems need to fashion out ways concerning the ever-rising pressure to prep up their standards, develop contemporary social and personal skills, broaden their curricula, pay even greater attention to equal educational opportunities for all and prepare young ones for a rapidly changing world (Adetoro, 2014).

The necessity for 21<sup>st</sup> century based inclusive education efforts is even more of an imperative due to the fact that 21<sup>st</sup> century learning skills (critical thinking, communication, collaboration and creativity) are seen by various researchers and educational bodies as being necessary for every individual to acquire for successful societal living in present times (Pacific Policy Research Center, 2010; Valli, et al, 2014; Dimkpa, 2015; Queensland Curriculum and Assessment Authority, 2015). In addition, Lipsky and Gartner (1999) asserted that inclusive education being a fundamental right derived from the principle of equity could significantly contribute to a democratic society if given due attention in an educational system. The specific benefits of inclusive education according to Udeme and Olisaemeka (2016) are that it; (i) encourages those without disabilities to accept, tolerate and develop favourable dispositions towards those with special needs; (ii) improves the sociability of those with special needs; (iii) reduces the cost and need of having to provide separate educational institutions for those with and without special needs, and; (iv) facilitates an all-round development of those with and without special needs.

The transformation of the web from Web1.0 technology to Web 2.0 technology has innovatively ensured the radical redesigning of many life-based processes including instructional processes in schools. Web 1.0 technology was a static web that provided a non-interactive environment i.e., a one-way communication environment while Web 2.0 technology provides an interactive and collaborative two-way communication environment thereby enhancing feedback (Singh & Gill, 2013). Examples of Web 2.0 technology include wikis, blogs, social media networking sites (Facebook, Twitter, Instagram, Skype, WhatsApp, etc), podcasts, e-mail, tagging, YouTube and Flickr (the last two are multimedia sharing tools). According to Alabdulkareem (2015), social media is a group of internet-based applications 'interactive platforms' that build on the ideological and technological foundations of Web 2.0 that allow the creation and exchanges of user-generated content. For Chen, et al, (2012), social media aided instruction in higher education can enable learners share learning resources, engage in peer review, and write personal/reflective blogs concerning their learning experiences.

WhatsApp is a social media messaging application which allows users to text, chat, and share media, including voice messages and video, with individuals or groups (Al-Fawareh, 2016). It is a social media messaging application that also provides group chat and location sharing options. It works on iPhone, Android, BlackBerry, Symbian, and Windows devices. According to Mayangsari and Aprianti (2017), the usage of WhatsApp includes maintaining communication among learners and teachers and to build mutual relationship to participate in education system. Learners could enjoy using WhatsApp in their interactions with teachers because the application gives opportunity for learners to interact anytime with teachers and other stakeholders with attractive features such as feature text, video, photo, picture and emoticon and it costs low, only for the internet package.

Several purposes of utilizing WhatsApp for students can be classified as communicating with other students, nurturing the social learning environment, creating dialogue and encouraging sharing among students and as a learning platform. It has technical, educational and academic advantages. However, it could also breed issues such as irrelevant and nonsensical messages and incompatibility language between teacher and students (Bouhnik, et al, 2014).

Facebook is a social media application which enables its users to interact through conversations, and also build relationships by creating network groups with other users (Choi & Kang, 2014). It gives room for registered users to create personal profiles, add other registered users and groups as friends and also exchange messages which include auto-device notifications when their profiles are updated (Ifeanyi-Obi, et al 2014). The created groups are usually as part of smaller communities within the social networking site and often times focus on specified interests or beliefs concerning certain issues (Junco, 2012). Safko, (2010) identified this application and as being the most popular and widely used social media network by stating that;

"It has 425 million users; more than 35 million users update their status each day, more than 3 billion photos are uploaded each month, more than 5 billion pieces of content including blog posts, news, web links, notes, photos, etc, are shared each week; more than 3.5 million events are created each month; more than 1.5 million businesses have fan pages and more than 20 million people become "fans" of fan pages every day (p.8)"

The addition to the above assertion is that as of June 2019, Facebook was recorded as the biggest social media based on number of active users – 1.59 billion daily active users and 2.41 billion monthly active users (Clement, 2019). This study's assumption is thus – "utilisation of social media (WhatsApp and Facebook) as tools for instruction in higher institutions might help in driving  $21^{st}$  century inclusive education efforts." Therefore, in line with the assumption, this study is focused on verifying students' perceptions on whether utilisation of social media tools for teaching/learning can contribute towards driving  $21^{st}$  century inclusive education efforts in Nigerian universities.

## 2. Literature Review

Choi and Kang (2014) probed Korean undergraduates' motives for social media utilization and instituted the following five motives were responsible – (i) for keeping passive relationships; (ii) for building their

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learning network; (iii) for building social connections; (iv) for daily information sharing, and; (v) for task solving purposes. Ifeanyi-Obi *et al.*, (2014) examined the impact of social media on academic activities of Nigerian undergraduate students and reported that Facebook was the most widely used social media for the following reasons – (i) facilitates networking with their colleagues; (ii) enhances collaboration with their colleagues and others, and; (iii) it serves as an avenue for ease of information flow. Nwangwa, et al (2014) examined how Nigerian undergraduates' use of social media influenced their research skills and revealed that most of them applied the usage of Facebook to generate ideas from their colleagues concerning their research focus.

In their study, Asogwa, et al (2015) concluded that students in Nigerian tertiary institutions primarily used Facebook to escape from boredom, to communicate, to make new friends, chat, and post/comment on photos. The finding also revealed that their usage of the social media sites only affects their academic performance in terms of spoken and written communication. In a research work on social media utilization for educational purposes among mass communication students in Nigerian universities, Musa (2015) observed that most of them used Facebook to report and share class-based information among themselves. Apuke (2016) appraised the influence of social media on Nigerian undergraduates' academic performance in schools and showed that Facebook was their mostly preferred social media site for exchanging notes and ideas with their fellow colleagues.

Utilization of WhatsApp and Nigerian learners' academic performance in secondary school geography was researched by Etim, et al (2016). Using a quasi-experimental approach, the study showed that usage of the application facilitated a significant difference in performance between those who used the social media network and those who did not. Naidoo and Kopung (2016) explored the utilization of WhatsApp in facilitating the performance in mathematics of South African undergraduates and reported that the application significantly enhanced the learners' proficiency. An inquiry of the efficiency of WhatsApp as a collaborative tool for undergraduates' learning process in Nigeria using a quasi-experimental design was embarked by Akpan and Abe (2017). The outcome of the research exposed a significant difference in the retention ability of learners who were taught using the application than those who were taught using the conventional lecture method. Aligwe, et al (2017) reported that social media utilization (Facebook) for academic purposes among Nigerian undergraduates was a contributory factor towards facilitating students' concentration and attention in class.

In a study of Nigerian undergraduates' access to, and utilization of social networking sites for educational purposes, Apuke and Ezeah (2017) reported that the students mainly used Facebook to exchange ideas. Bakare and Kuku (2017) surveyed the impact of social networking sites on Nigerian undergraduates' academic activities and communication patterns. The study's outcome showed that the most preferred site (Facebook) remained useful for group chats (for communication) while it was used for announcing lectures, tutorials, test and exam dates, and class reading periods. Boyinbode, et al (2017) assessed the efficiency of WhatsApp in enhancing mobile learning processes among Nigerian undergraduates and discovered that the application was more effective than Email, Short Message Service (SMS), Twitter and BlackBerry Messenger (BBM) in terms of content richness, accuracy, and adaptability.

The result of WhatsApp use on instructional success among Turkish secondary school students was determined by Cetinkaya (2017). The outcome showed that the learners were very disposed to their learning processes which utilized the application as they revealed that the messages which were accompanied by images were very effective towards enhancing their learning. An evaluation of the efficacy of WhatsApp strategy for the teaching-learning process of community medicine among Indian undergraduates was conducted by Dyavarishetty and Patil (2017). Their finding showed that the application significantly stimulated and encouraged learning among the students. In an investigation of Jordanian tertiary students' perceptions of integration of Whatsapp into the their teaching-learning process, Gasaymeh (2017) revealed that some of the respondents were very positive towards usage of the application for; (i) communicating with classmates concerning matters related to courses' requirements; (ii) seeking help as it concerns of their courses' requirements from those who had already taken the courses, and; (iii) formation of student-based groups for related educational purposes.

Using a quasi-experimental design, Gon and Rawekar (2017) examined the efficiency of WhatsApp as a lecture delivery tool for Indian medicine/surgery students. The finding indicated that those taught with the application significantly outscored their counterparts that were taught with the conventional lecture method. Utilization of WhatsApp to facilitate English Language learning among Saudi undergraduates was investigated by Hamad (2017). The application was found to be very valuable in enriching their vocabulary and also, learning from their colleagues' mistakes. In their survey of the impact of social network sites on students' research skills in Nigerian universities, Adenaike and Peleyeju (2018) concluded that social media usage impacted on them in the following - (i) capability to generate ideas concerning areas of research interest; (ii) avenue for sourcing quality research materials, appropriate research analytical tools for presenting results, and; (iii) development of creative writing research skills.

For Akabogu *et al.*, (2018) an appraisal of the influence of social networking sites on academic adjustment of newly admitted undergraduates in Nigeria showed that the media did have a significant influence on their academic adjustment. An enquiry of the effect of WhatsApp utilization on academic performance of Nigerian undergraduates by Augustine and Nwaizugbu (2018) showed that the application significantly influenced the students' performance. Ibrahim, Koki, Sani and Bala (2018) appraised social media preference among Nigerian undergraduates and discovered that most of them preferred Facebook among all the investigated social media networks. Igbafe (2018) verified how WhatsApp could disrupt or enhance Nigerian undergraduates' academic performance and reported that the application significantly brought about academic disruption among students through addiction to non-educational platforms while alternatively, it can facilitate academic performance when learners are part of educationally based platforms.

In a study on the role of WhatsApp strategy for enhancing undergraduate management students' learning capabilities in India, Kushwaha and Jhawar (2018) observed that majority of the learners were very encouraged to utilize the application for learning despite the posting of negative messages by their fellow learners on platforms strictly meant for interaction with their teachers. Rosenberg and Asterhan (2018) probed Israeli secondary school students' perspectives towards their teachers' adoption of "Whatsapp

classrooms". Majority of the learners expressed the following opinions; (i) it can be very efficient for organizing instructional processes - sending and receiving updates; and managing learning activities; (ii) it can be effective as a means through which teachers enforce discipline, and; (iii) it is very advantageous in terms of communication (easy access; capability to create communities; potential to safeguard personal privacy; and communication format - any of written, mediated, personal, or group). However, its major disadvantages were communication overload and reduced teacher capability to halt students from posting all manner of posts on the platform.

In their study among Namibian undergraduates, Ujakpa, et al (2018) revealed that usage of Whatsapp to backed instructional communication processes which facilitated interactions and intimacies between students and lecturers. Umar and Idris (2018) revealed that social media utilization among secondary school students in Nigeria for non-educational purposes did have a significant negative influence on each of their academic performances and their psychosocial behaviours.

Based on these stated evidence from researchers, usage of social media technology (with specific reference to WhatsApp and Facebook) as teaching/learning tools in Nigerian tertiary institutions can presumably serve as a contributor to 21<sup>st</sup> century inclusive education efforts. Thus, this study ascertained tertiary students' perceptions concerning the extent to which utilization of the investigated social media technologies as teaching/learning tools in universities might enhance 21<sup>st</sup> century inclusive education efforts.

## 3. Research Question

The following research question was raised for the study;

1. To what extent do learners in higher institutions perceive use of social media (WhatsApp and Facebook) in their teaching/learning process as a positive contributor to inclusive education efforts?

## 4. Method

A descriptive survey design was utilized for the study. The study was conducted in University of Calabar; Cross River State. All 392 registered 2018/2019 students of Educational Technology unit (Levels 100-400) of the Department of Curriculum and Teaching in the Faculty of Education in the aforementioned school served as the population. Purposive sampling technique was used to select 68 respondents for the study from 300 and 400 Levels. A 15-item instrument tagged "Learners' Perceptions of social media as Teaching/Learning Tools and Contribution to 21<sup>st</sup> century Inclusive Education Efforts' Questionnaire" (LPSMTLTCIEEQ) was employed for collecting data. The response rubric consisted of Strongly Agree (SA), Agree (A), Disagree (D), and Strongly Disagree (SD). The reliability estimate method used was Cronbach Alpha and the result revealed the internal consistency to be 0.82. Descriptive statistics (frequencies and percentages) were used for data analysis.

### 5. Presentation of Results/Discussion of Findings

The analysis of data in relation to the items of the research question is as follows;

TABLE 1: Frequencies and percentages of learners' perceptions of social media (WhatsApp and Facebook) for teaching/learning as contributor to 21<sup>st</sup> century inclusive education efforts

S/N	ITEM	SA	А	D	SD
	Use of Whatsapp and Facebook for teaching/learning				
	processes by lecturers could				
1.	intensify my participation in class activities	38	21	5	4
		(55.3%)	(31.5%)	(7.9%)	(5.3%)
2.	reduce my concentration during lessons when I receive	2	5	22	39
	posts from friends	(2.6%)	(7.9%)	(31.6%)	(57.9%)
3.	create more social learning bonds between me, my	41	18	5	4
	classmates and lecturers	(60.5%)	(26.3%)	(7.9%)	(5.3%)
4.	expose me to associating with more non-academic content	2	4	19	43
	based on posts received	(2.6%)	(5.3%)	(28.9%)	(63.2%)
5.	increase my academic-based task solving abilities	41	18	5	4
		(60.5%)	(26.3%)	(7.9%)	(5.3%)
6.	make me engage in posting distractive posts on whatever	4	7	19	38
	learning platforms created for learning purposes	(5.3%)	(10.5%)	(28.9%)	(55.3%)
7.	minimise my worries of obtaining class-related	39	19	5	4
	information from my lecturers	(57.9%)	(28.9%)	(7.9%)	(5.3%)
8.	enable me contribute more meaningfully to class related	41	18	5	4
	critical thinking issues	(60.5%)	(26.3%)	(7.9%)	(5.3%)
9.	reduce the appropriateness of words to use when	4	6	22	38
	interacting with my colleagues	(5.4%)	(8.1%)	(32.4%)	(54.1%)
10.	facilitate my proficiency in class work	29	23	7	9
		(43.1%)	(33.6%)	(10.8%)	(12.5%)
11.	make me indulge more in using short form of words when	5	7	20	36
	collaborating with my lecturers	(7.5%)	(10.8%)	(28.8%)	(52.9%)
12.	strengthen my selfie-taking desires for posting on our	5	4	35	24
	academic learning platforms	(6.9%)	(6.2%)	(52.1%)	(34.7%)
13.	boost my willingness to chat with friends concerning	23	33	6	6
	academic related issues	(34.0%)	(49.6%)	(8.1%)	(8.3%)
14.	upgrade my commitment towards learning from	32	25	6	5
	colleagues' academic related mistakes	(47.5%)	(36.9%)	(8.9%)	(6.8%)
15.	raise my creative research writing skills	33	23	5	7
		(48.6%)	(34.4%)	(7.3%)	(9.7%)

#### Source: Field Survey, 2019

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From Table 1, the respondents harbour favourable perceptions towards utilisation of social media tools serving as a contributory driver to 21<sup>st</sup> century inclusive education efforts in Nigerian universities. From the responses, 86.8% of the respondents perceive the tools as an approach that can intensify their participation in class activities. Also, 86.8% see it as an approach that can create more collaborative social bonds between them and their lecturers and also, boost their willingness to collaboratively communicate more with their classmates on academic-related issues. The result also shows that 86.8% view it as an approach that can increase their academic-based task solving abilities. 86.6% of them also perceived it as an approach that would enable them participate more in class based critical thinking issues. 76.7% of them agreed it to be an approach that would facilitate their proficiency in class work, and lastly, 83% indicated that it is as an approach that would raise their creative research writing skills.

Apparently, the findings imply that students perceive that use of the social media tools for their teaching/learning process can facilitate not only their participation in contemporary inclusive education efforts but also seem to reveal that use of the tools can enhance their acquisition of 21<sup>st</sup> century skills. The findings are in consonance with those of Ifeanyi-Obi *et al.*, (2014), Nwangwa *et al.*, (2014), Asogwa *et al.*, (2015), Musa (2015), Etim *et al.*, (2016), Apuke (2016), Aligwe *et al.*, (2017), Bakare and Kuku (2017), Adenaike and Peleyeju (2018) and Augustine and Nwaizugbu (2018) who all revealed that use of Whatsapp and Facebook as tools for teaching/learning processes did serve as drivers of 21<sup>st</sup> century educational efforts in Nigerian universities.

#### Conclusion

The necessity of the use of social media as tools for the teaching-learning process in schools for onward contribution towards driving 21<sup>st</sup> century inclusive education efforts in tertiary institutions is imperative to the survival of inclusive education efforts in the country. Using social media as tools for teaching-learning process can only be better understood when one imagines the wide range of persons with diverse learning needs that are active daily and monthly users of the applications. Learners with special needs (those for inclusive education) have numerous cases that most times may not be very evidential unless one gets close and personal with them. By using a platform that is easily accessible to them, as revealed by the study (in terms of the students' perceptions), such can enhance their participation in class-related activities. Worthy of mention here is that one vital determinant that impacts profoundly on students' motives to learn is by attracting their interest towards what is to be learnt. By utilizing the extent of interest, they have in "interactions within social media communities", their 21<sup>st</sup> century skills could be enhanced, 21<sup>st</sup> century inclusive education efforts in the country could be driven further and even more persons could be interested in becoming students in the long run.

## Recommendations

Based on the finding, the following recommendations are made;

1. Lecturers should incorporate more use of social media tools for teaching-learning processes due to the probable presence of unknown special needs' learners in every given class.

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- 2. Lecturers should also periodically have interrogative sessions with the learners on their social media platforms in order to ascertain those with special needs.
- 3. School authorities should establish school-based bodies to assist lecturers towards implementing inclusive education strategies through use of social media tools in their teaching-learning processes.

#### References

- Adenaike, F. A., & Peleyeju, J. O. (2018). Social media usage and undergraduate students' research skills development in Tai Solarin University of Education, Nigeria. *Kampala International University*, 4(3), 65–74. http://www.ijhumas.com/ojs/index.php/kiujoss/article/view/382/359
- Adeniyi-Egbeola, F. O., & Tunde-Awe, M. B. (2018). English language teachers' awareness level and views on inclusive Education in basic Education levels in Northern central zone of Nigeria. *KUI journal of Social Science 4*(2), 103-112. http://www.ijhumas.com/ojs/index.php/kiujoss/article/view/337
- Adetoro, R. A. (2014). Inclusive Education in Nigeria A Myth or Reality? *Creative Education*, 5, 1777-1781. DOI: <u>10.4236/ce.2014.520198</u>
- Afolabi, O. E., Mukhopadhyay, S., & Nenty, H. J. (2015). Socio-demographic variables as a predictor of parents 'efficacy for involvement in inclusive education: Experience from Nigeria. *Turkish Journal of Teacher Education*, 4(1), 50-65. http://tujted.com/makale\_indir/649
- Ajuwon, P. M. (2008). Inclusive education for students with disabilities in Nigeria: Benefits, challenges and policy implications. *International Journal of Special Education*, 23(3), 123-130. https://eric.ed.gov/?id=EJ833673.
- Akabogu, J. U., Ibe, K. C., Omeje, J. C., Ede, M. O., Ezurike, A. C., Ezeh, E. N., ... Ulo-Bethels, A. C. (2018). Social networking and academic adjustment of English Language students. *International Journal of u- and e- Service, Science and Technology*, 11(1), 55-64
- Akpan, K. P., & Abe, E. (2017). Effectiveness of whatsapp as a collaborative tool for learning among undergraduate students in University of Uyo, Akwa Ibom State. *International Journal of Advanced Education and Research*, 2(5), 43-46. file:///C:/Users/HP/Downloads/2-4-89-490.pdf
- Alabdulkareem, S. A. (2015). Exploring the use and impacts of social media on teaching and learning in Saudi. *Procedia – Social and Behavioural Sciences*, 182, 213-224. doi: 10.1016/j.sbspro.2015.04.758

Al-Fawareh, H. M. (2016). Social media technology as a teaching and learning tool. Journal of Scientific

Research and Development, 3(3), 37-40.

- Aligwe, H. N., Ugochukwu, N. S., & Nwafor, K. A. (2017). Social media use pattern and the image implication among university undergraduate students in South East, Nigeria. *International Digital* Organization for Scientific Research Journal of Humanities and Social Sciences, 2(2), 231-249
- Apuke, D. O. (2016). The influence of social media on academic performance of undergraduate students of Taraba State University, Jalingo, Nigeria. *Research on Humanities and Social Sciences*, 6(19), 63-72. Doi: <u>10.29333/ojcmt/2615</u>
- Apuke, O. D., & Ezeah, G. H. (2017). The access and utilisation of social networking sites among social science students' in northeastern Nigerian public universities. *International Journal of Social Sciences and Humanities Reviews*, 7(2), 215 – 228. <u>https://www.ijsshr.com/journal/index.php/IJSSHR/article/view/356</u>
- Asogwa, C. E., Ojih, E. U., & Onoja, I. B. (2015). Use of social networking sites and academic performance among students of selected tertiary institutions in Kogi State. *International Journal* of African and Asian Studies, 6, 46-57. https://iiste.org/Journals/index.php/JAAS/article/view/17796
- Augustine, S. E., & Nwaizugbu, N. Q. (2018). Whatsapp utilization and academic performance of computer in education trainee teachers in University of Port-Harcourt. *International Journal of Education, Learning and Development, 6*(5), 15-25
- Bakare, T. V., & Kuku, O. O. (2017). Social network sites' influence on undergraduates' academic activities in Colleges of Education in Lagos State. *ATBU Journal of Science, Technology & Education (JOSTE)*, 5(3), 193-202. http://www.atbuftejoste.com/index.php/joste/article/view/385
- Bouhnik, D., Deshen, M., & Gan, R. (2014). WhatsApp goes to school: Mobile instant messaging between teachers and students. *Journal of Information Technology Education: Research*, 13, 217– 231. http://www.jite.org/documents/Vol13/JITEv13ResearchP217-231Bouhnik0601.pdf
- Boyinbode, O. K., Agbonifo, O. C., & Ogundare, A. (2017). Supporting mobile learning with WhatsApp based on media richness. *Circulation in Computer Science*, *2*(3), 37-46. Doi:10.22632/CCS-2017-251-89
- Cetinkaya, L. (2017). The impact of whatsapp use on success in education process. *International Review* of Research in Open and Distributed Learning, 18(7), 59-74. https://files.eric.ed.gov/fulltext/EJ1163183.pdf
- Chen, Y. C., Hwang, R.H., & Wang, C. Y. (2012). Development and evaluation of a Web 2.0 annotation system as a learning tool in an e-learning environment. *Computers & Education*, 58(4), 1094– 1105. <u>https://www.learntechlib.org/p/67488/</u>.

- Choi, J., & Kang, W. (2014). A dynamic examination of motives for using social media and social media usage among undergraduate students: A latent class analysis. *Procedia - Social and Behavioral Sciences*, 131, 202-210. <u>https://doi.org/10.1016/j.sbspro.2014.04.105</u>
- Dimkpa, D. I. (2015). Teachers' conduct in the 21<sup>st</sup> century: The need for enhancing students' academic performance. *Journal of Education and Practice*, 6(35), 71-78. <u>https://files.eric.ed.gov/fulltext/EJ1086324.pdf</u>
- Dyavarishetty, P. V., & Patil, D. C. (2017). An interventional study to assess the effectiveness of 'WhatsApp' as a teaching learning tool in community medicine. *International Journal of Community Medicine and Public Health, 4*(7), 2564-2569. DOI: 10.18203/2394-6040.ijcmph20172860
- Etim, P. J., Udosen, I. N., & Ema, I. B. (2016). Utilization of whatsapp and students' performance in Geography in Uyo Educational Zone, Akwa Ibom State. *International Journal of Innovation and Research in Educational Sciences*, 3(5), 326-329. https://www.ijires.org/index.php/issues?view=publication&task=show&id=194

Federal Republic of Nigeria (2008). National Policy on Education. NERDC Press.

- Gasaymeh, M. M. (2017). University students' use of Whatsapp and their perceptions regarding its possible integration into their education. *Global Journal of Computer Science and Technology: G-Interdisciplinary*, 17(1), 1-10. https://globaljournals.org/GJCST\_Volume17/1-University-Students-use-of-Whatsapp.pdf
- Gon, S., & Rawekar, A. (2017). Effectivity of e-learning through whatsapp as a teaching learning tool. *MVP Journal of Medical Sciences*, *4*(1), 19–25. DOI: 10.18311/mvpjms/2017/v4i1/8454
- Hamad, M. M. (2017). Using whatsapp to enhance students' learning of English Language "experience to share". *Higher Education Studies*, 7(4), 74-87. <u>http://doi.org/10.5539/hes.v7n4p74</u>
- Ibrahim, A. T., Koki, K. A., Sani, M., & Bala, B. (2018). Media preference among students of Kano State Polytechnic - Nigeria. *International Journal of Advanced Academic Research - Arts, Humanities* & *Education, 4*(4), 1-15. https://www.ijaar.org/articles/Volume4-Number4/Arts-Humanities-Education/ijaar-ahe-v4n4-apr18-p20.pdf
- Idika, D. O., & Eke, V. U. (2017). Assessment of teachers' knowledge and application of differential assessment techniques in all inclusive classroom in universities in South-South Zone, Nigeria. *Global Journal of Educational Research*, 16, 1-8. DOI: 10.4314/gjedr.v16i1.1

- Ifeanyi-Obi, C. C., Olatunji, S. O. & Akpala, J. (2014). Perceived effects of facebook on academic activities of agricultural students in University of Port Harcourt. IOSR Journal of Mobile Computing & Application (IOSR-JMCA), 1(2), 12-16
- Igbafe, E. C. (2018). WhatsApp at tertiary education institutions in Nigeria: The dichotomy of academic disruption or academic performance enhancer? *Africology: The Journal of Pan African Studies*, 12(2), 179-205. https://jpanafrican.org/docs/vol12no2/Ola-12.2-14-Igbafe.pdf
- Junco, R. (2012). Too much face and not enough books: The relationship between multiple indices of Facebook use and academic performance. *Computers in Human Behavior*, 28, 187-198. <u>https://doi.org/10.1016/j.chb.2011.08.026</u>
- Kushwaha, P. S., & Jhawar, N. (2018). Role of whatsapp as a teaching aid to enhance learning capabilities of management students. Ushus-Journal of Business Management, 17(1), 43-51. https://doi: 10.12725/ujbm.42.4
- Lipsky, D. K., & Gartner, A. (1997). *Inclusion and school reform: Transforming America's classrooms*. Paul H Brookes. <u>https://onlinelibrary.wiley.com/doi/abs/10.1002/pits.10015</u>
- Mayangsari, I. D., & Aprianti, A. (2017). Understanding communication among parents and teachers in WhatsApp: Case study in Bandung, Indonesia. *Malaysian Journal of Social Sciences and Humanities*, 2(2), 19-24 DOI: <u>https://doi.org/10.47405/mjssh.v2i2.40</u>
- Musa, A. S. (2015). Social media in the learning process of Nigerian students of mass communication. New Media and Mass Communication, 44, 25-30. https://www.iiste.org/Journals/index.php/NMMC/article/view/27759
- Naidoo, J., & Kopung, K. J. (2016). Exploring the use of whatsapp in mathematics learning: A case study. *J. Communication*, 7(2), 266-273. DOI:10.1080/0976691X.2016.11884907
- Nwangwa, K. C. K., Yonlonfoun, E., & Omotere, T. (2014). Undergraduates and their use of social media: Assessing influence on research skills. *Universal Journal of Educational Research*, 2(6), 446-453. DOI: 10.13189/ ujer.2014.020602
- Okoye, F. O., & Adirika, B. N. (2019). The challenges of implementing inclusive education for visually impaired undergraduates in Nigerian Tertiary Institutions. *European Journal of Education Studies*, 6(2), 239-252
- Oladele, A. O., Ogunwale, O. R., & Dafwat, S. S. (2016). Inclusive education for persons with disabilities in Nigeria: How far? *International Journal of Advanced Academic Research Arts, Humanities* &

*Education, 2*(5), 1-8. https://www.ijaar.org/articles/volume2-number5/Arts-Humanities-Education/ijaar-ahe-v2n5-may16-p3.pdf

- Onukwufor, J. N., & Martins, U. (2017). Challenges of implementing inclusive education of children with visual impairment in Port Harcourt, Rivers State. *International Journal of Education*, *Learning and Development*, 5(3), 1-9 DOI: <u>https://doi.org/10.37745/ijeld.2013</u>
- Pacific Policy Research Center (2010). 21<sup>st</sup> century skills for students and teachers. Kamehameha schools research & evaluation division. file:///C:/Users/HP/Downloads/21st-CenturySkillsforStudentsandTeachers.pdf
- Queensland Curriculum and Assessment Authority (2015). 21<sup>st</sup> century skills for senior education: An analysis of educational trends. The State of Queensland Press. https://www.qcaa.qld.edu.au/downloads/publications/paper\_snr\_21c\_skills.pdf
- Rosenberg, H., & Asterhan, C. S. C. (2018). "WhatsApp?" Teacher-student perspectives on teacherstudent whatsapp interactions in secondary schools. *Journal of Information Technology Education: Research*, 17, 205- 226. <u>https://doi.org/10.28945/4081</u>
- Safko, L. (2010). The Social Media Bible. John Wiley & Sons, Inc.
- Singh, K. P. & Gill, M. S. (2013). Web 2.0 technologies in libraries: a survey of periodical literature published by Emerald. *Library Review*, 62 (3), 177-198. <u>http://people.du.ac.in/~kpsingh/wpcontent/uploads/2014/03/JournalArtical.pdf</u>
- Udeme, S. J., & Olisaemeka, A. N. (2016). Inclusive education in the 21st Century: Parameters and opportunities for learners with special needs. *European Scientific Journal*, 12(10), 188-196. doi: 10.19044/esj.2016.v12n10p188
- Ujakpa, M. M., Heukelman, D., Lazarus, V. K., Neiss, P., & Rukanda, G. D. (2018). Using whatsapp to support communication in teaching and learning. IST-Africa 2018 Conference Proceedings held in Botswana between 9-11 May; 2018. <u>http://www.ist-africa.org/home/outbox/ISTAfrica\_Paper\_ref\_68\_10139.pdf</u>
- Umar, T. I., & Idris, M. (2018). Influence of social media on psychosocial behaviour and academic performance of secondary school students. *Journal of Education & Entrepreneurship*, 5(2), 36-46. <u>https://doi.org/10.26762/jee.2018.40000013</u>

- UNESCO. (2009). New UNESCO Guidelines on Inclusive Education. Paris: UNESCO. http://www.unesco.org/new/en/media-services/singleview/news/unescos\_new\_policy\_guidelines\_on\_inclusion\_in\_education/
- Valli, P., Perkkilä, P., & Valli, R. (2014). Adult Pre-Service Teachers Applying 21st Century Skills in the Practice. Athens Journal of Education, 1(2), 115-129. https://files.eric.ed.gov/fulltext/EJ1217613.pdf.