

Original Article

Perception of College of Education Lecturers on Usability of E-Learning Technologies for Teaching Social Studies in North-Central, Nigeria

Dr. Kareem, Ibrahim Ahmed¹, Abdulkareem, Monsurat Iyabo²

¹Department of Curriculum and Instruction, School of Education, Federal College of Education (Special), Oyo, Oyo State, Nigeria

²Department of Social Sciences Education, Faculty of Education, University of Ilorin, Ilorin, Nigeria

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Abstract - E-learning is a modern mode of communication, whether carried out remotely or in a classroom, such as the computer and its networks, different audio-visual resources, search engines, electronic libraries, and websites. The study investigated the perception of Colleges of Education lecturers' usability of e-learning technologies for teaching Social Studies in North-central, Nigeria. The study was descriptive research, using the survey method. The population for the study was all Social Studies (SOS) lecturers in Colleges of Education (COE) in Nigeria, while 237 SOS lecturers were purposively selected from 42 COEs in North-central, Nigeria, for the sample of the study. The instrument for the study was a questionnaire. Seven experts validated the instrument. The reliability of the constructs was examined using Cronbach's Alpha, and it yielded a 0.74 value. For the research issues one through four, data were analyzed using mean and standard deviation. Hypothesis one was examined using a t-test, while hypotheses two and three were assessed using ANOVA. The findings demonstrated, among other things, that gender made no major impact on the use of e-learning technology for teaching SOS in COE. It was so advised, among other things, that educational policymakers engage with ICT specialists to design courseware that will improve Colleges of Education lecturers' ability to use e-learning technology for instructional objectives.

Keywords - E-Learning Technologies, College of Education, Social Studies, Teachers' Experience, Teachers' Qualification, Usability.

1. Introduction

A nation is usually recognised based on the level of its development. This development, most times, is usually a product of education, which has been acquired by the citizens of such a nation who eventually participate and contribute meaningfully to the building and development of the nation. Education is one of the main keys to economic development and improvement in human welfare. Mullen and Wedwick (2008) and Ogunbiyi (2018) posited that education is an age-old concept that has existed since man inhabited the universe. As such, education is a process of transmitting societal values, knowledge, skills and attitudes from generation to generation. However, in the 21st century, being literate has gone beyond knowing how to read or write alone, but includes the acquisition of knowledge of the utilisation of technologically inclined devices.

E-learning technology is the integration of the learning process with the internet; it also refers to computer-based learning. In today's world, computer learning simply refers to acquiring knowledge online via the internet or offline via CD-ROM, among other things. Browsers such as Internet Explorer or Netscape Navigator are required for using



the internet. It can take the shape of audio, video, or audio/visual. E-learning refers to the internet's convergence with learning, often known as Internet-enabled learning. Network technologies enable, nurture, and facilitate learning at any time and from any location. It also includes the real-time distribution of personalized, comprehensive, dynamic learning information, which aids in the creation of knowledge communities by connecting learners and practitioners with experts. This is a phenomenon that provides accountability, accessibility, and opportunity for people and organizations to keep up with the rapid changes that define the Internet world. It is a force that provides people and organizations with a competitive advantage in order to stay ahead of the quickly changing global economy. In support of the above assertion, Olaniyi (2020) and Economic Times (2022) also explained that the combination of the internet and learning or Internet-enabled learning, is called e-learning.

E-learning is a learning system that is founded on formalized instructional strategies but utilizes electronic resources. Computers and the Internet are the primary components of e-learning, although instruction can be conducted in or outside of the classroom. E-learning is also classified as a network-enabled transmission of knowledge and skills, in which education is provided to a large number of recipients at the same or separate times. Prior to this, it was not universally embraced due to the assumption that this system lacked the human element necessary for learning. Nevertheless, because of the swift advancement in technology and the improvement of learning systems, it has been embraced by the general public. Computers were the foundation of this revolution, and as time has passed, we have become increasingly reliant on smartphones, tablets, and other devices. Consequently, these devices have become an essential component of the educational experience. Books are progressively being supplanted by electronic educational materials, such as optical discs or pen drives. Information can be disseminated through the internet, which is accessible at any time and from any location. Numerous innovative methods are currently available for universities and knowledge leaders to provide students with training. It is primarily concerned with the innovative application of technology in a manner that is most appropriate for their circumstances.

Nicholas et al. (2014) defined usability as the degree to which a particular product is used by particular users to accomplish a specific goal with efficiency, effectiveness and satisfaction from a precise standpoint. In corroborating the above assertion, the usability of e-learning technologies has increased significantly in recent times. E-learning technologies are supplementing teaching and learning in Colleges of Education, as it is seen as one of the applications that can aid learning in Colleges of Education.

Colleges of Education are tertiary institutions under the Teacher Education Programme. Junaids (2012) asserted that the mandate of the teacher training programme at the National Certificate in Education (NCE) level, which is the approved minimum teaching qualification in Nigeria, is to produce quality teachers for the Basic Education sub-sector. Corroborating Junaids, the Basic Education sub-sector is composed of five educational categories: Pre-primary Education or Early Childhood and Care Education; Primary Education; Junior Secondary Education; Adult and non-formal Education; and Special Needs Education. The program's objective is to offer academic and professional development opportunities for NCE instructors in the field of Social Studies. It aims at developing students' values, interests and skills (FRN, 2012). Such noble educational programmes should be supported with better technology. In Colleges of Education, there are various schools, namely: Vocational and Technical, School of Education, School of Sciences, School of Languages and School of Art and Social Sciences. In the School of Art and Social Sciences, there are different departments, including Economics, Political Science, Islamic and Religious Studies, Geography and Social Studies departments.

Social Studies were implemented in Nigerian schools pursuant to specific philosophical principles. One approach is to confront social issues and the challenges of human existence in their interconnectedness, as they manifest in real-world scenarios, rather than in an unrelated manner, as they are taught in distinct disciplines such as Geography, Religion, Sociology, and Anthropology. Jekayinfa (2005) and the National Teachers' Institute (N.T.I) (2006) stated that Social Studies was introduced as an integrated discipline to make education real to life. In line with this assertion, it is believed that Social Studies is an area of the school curriculum specifically designed for the study of man and how he fits into society by utilising the necessary attitudes, values and skills within his reach. The major role of Social Studies

lecturers is to support learners in their quest for new knowledge on Social Studies. The quality and quantity of knowledge that is being received by the Social Studies lecturers depend on many factors, among which are perception, teachers' qualifications and teachers' experience.

Perception is defined as a process by which organisms interpret and organise sensation to produce a meaningful experience of the world (Olasedidun, 2014). This has to do with the meaning that an individual gives to experiences gathered through sensory organs, which will dictate how to react to such experiences either positively or negatively. For instance, when a person perceives that a particular tool possesses some usefulness, it is assumed that such a person may want to exploit the usefulness of such a tool maximally. However, if such a tool is perceived as not useful, it may not be considered for use at all.

Academic and professional credentials that qualify an individual to become a registered teacher at all educational levels are referred to as teacher qualifications. It also pertains to the acquisition of pertinent knowledge, skills, competence, and creativity that are essential for quality, productive engagement in the teaching profession. Teacher qualification is a prerequisite for achieving the objectives of the school curriculum, which include Chemistry, Commerce, Biology, Social Studies, and so forth. It is the most critical factor in enhancing the academic performance of students. A teacher who is entirely certified and possesses the equivalent of a major in the subject matter is considered to be well-qualified. The caliber of its teachers is a matter of great importance to the nation, and the education they receive is dictated by the high social demand for education. The pre-requisite qualification requirements for teachers must, therefore, be given the necessary attention. Etiubon and Benson (2014) opined that if quality Social Studies education is to be realised, appropriate qualifications and experience are needed by teachers to impart skills for productive and engaging practical activities in the learners.

Termit and Samli (2014) investigated that secondary school teachers' knowledge and attitude to ICT use in the classroom in Malaysia revealed that 78% of the respondents had a negative attitude to the use of ICT in the classroom, while lack of adequate qualification and experience were factors that were responsible for this negative attitude. It can therefore be concluded that even if ICTs are made available in the sampled schools, only 22% of the teachers were ready to integrate them into their teaching. This percentage is too low when compared with the percentage of those who had a negative attitude toward the usability of ICT for instruction.

The expanded awareness of the expanding search for new ideas, new commitments, and new challenges is a component of teacher experience. Unique qualities of teaching efficacy are the experience and subject matter knowledge of teachers. Consequently, educators are those who are prepared and trained to address the evolving societal challenges. They should be capable of fostering the acquisition of the knowledge and skills necessary for active, productive, and enduring job possibilities in Social Studies in the learners. Among the key players in any effective integration of technology in teaching and learning is the teacher, as also supported by Etiubon and Benson (2014).

Gender is another variable that has been considered very important in educational research. Studies conducted by Okeke (2004), Udousoro (2011) and Ezeudu and Obi (2013) reported that gender differences exist in student achievement in Science and other subjects such as Social Studies. Adesoji (2002) and Muhammed (2010) also gave three explanations as identified by most studies in the Euro-America region on gender difference; these are biological, social and psychological. Based on these submissions, it is believed that gender bias regarding learning has its roots in the colonial period, when only a small number of upper- and middle-class female students were granted access to formal education. The content shows that males performed better than females in terms of academic outcomes.

2. Statement of the Problem

E-learning has emerged as another approach to education delivery. It is the design, development and delivery of instruction by electronic devices such as computers. Egbita (2016) worked on students' perceived challenges in using online social networks as a tool for facilitating e-learning in Nigerian secondary schools. The findings revealed that online social networks are not fully utilised as an e-learning tool. However, researchers focused on perceived

challenges in the use of online social networks. But not focusing on the usability of e-learning technology for teaching Social Studies in Colleges of Education in North-central, Nigeria, which is the focus of the study.

It has been observed that a shortage of infrastructure, as well as the use of traditional methods of teaching and learning, dominate the method of learning in Nigerian higher institutions. This situation is inadequate for the ever-increasing population of students in these institutions. The researcher observed that this is the information age, where and when technology has become an integral part of life and the teaching and learning process. These e-learning technologies are relatively cheap and are increasingly being acquired by students in Nigeria (Aderinoye, Ojokheta, & Olojede, 2007). However, it was discovered in Nigeria that only 29% of the e-learning technology users used e-learning technologies for educational purposes (Pyramid Research, 2010). This shows that 71% of the e-learning technology users used them for other purposes that are not educational. Hence, there is a need for teacher training institutions like Colleges of Education to prepare their students both aptitudinally and attitudinally toward the use of these e-learning technologies for learning (Sadeeq, Akbar, & Taqi, 2015). This will assist the shift from the use of the traditional method of teaching to the use of modern means of learning. Hence, the rationale behind carrying out a study on the perception of Colleges of Education lecturers on the usability of e-learning technologies for teaching Social Studies in North-central, Nigeria.

3. Methodology

The study was descriptive research, using the survey method. The population for the study was all Social Studies lecturers in Colleges of Education in Nigeria. A total number of 237 Social Studies lecturers were sampled for the study from 42 purposively selected Colleges of Education in North-central, Nigeria. The Social Studies lecturers were stratified by their gender, qualification and experience. Thus, 34 Social Studies lecturers were drawn from Federal Colleges of Education in North-central, Nigeria, fifty two (52) Social Studies lecturers were drawn from state Colleges of Education in North-central, Nigeria, while 151 Social Studies lecturers were drawn from private Colleges of Education in North-central, Nigeria.

The instrument for data collection that was used was a questionnaire developed by researchers and titled "Perception of Colleges of Education for teaching Social Studies in North-Central, Nigeria. The questionnaire had two sections, A and B. Section A was concerned with lecturers' information on gender, qualification and experience, while Section B sought information on the usability of e-learning technologies for Social Studies. A total of seven experts validated the instrument. Three lecturers in the Department of Computer Sciences and four lecturers in the Department of Social Sciences Education, University of Ilorin, Nigeria, validated the questionnaire for face and content validity. The reliability of the instrument was determined by subjecting it to the test-retest method. The validated questionnaire was administered within an interval of three weeks on 20 Social Studies lecturers from Colleges of Education in South-West, Nigeria. The responses of the lecturers were obtained, and the reliability data were subjected to Cronbach's Alpha statistics, thus yielding 0.74 as the reliability index. The researchers and two research assistants personally administered the questionnaire in all the sampled Colleges of Education in North-Central, Nigeria, within five weeks. At the end of the exercise, 212 valid copies of the questionnaire were retrieved. Research questions one, two, three and four were answered using mean and standard deviation. Hypothesis one was tested using t-test statistics, while ANOVA was used to test hypotheses two and three at a 0.05 level of significance.

4. Results

Step 1:

What is the perception of colleges of education lecturers on the usability of e-learning technologies for teaching Social Studies in North-Central, Nigeria?

Table 1: The Mean Scores and Standard Deviation on the Perception of Social Studies lecturers on usability of e-Learning Technologies

S/N	Usability of e-learning technologies in education	Mean	Std. Deviation
1	Click meeting	1.48	.501

2	Google Hangouts	1.62	.487
3	GoToMeeting	1.39	.499
4	Learncube	1.08	.326
5	Manycam	1.24	.488
6	Moodle	1.40	.490
7	Skype	1.59	.493
8	Vedamo	1.13	.334
9	Webex	1.30	.458
10	WisIQ	1.22	.413
11	Whatsapp	1.96	.191
12	Zoom	1.98	.152

Criterion mean= 1.50

Table 1 indicates that items 1, 3, 4, 5, 6, 8, 9 and 10, with the mean value of 1.48, 1.39, 1.08, 1.24, 1.40, 1.13, 1.30 and 1.22, respectively, are below the criterion mean of 1.50. Other items 2, 7, 11 and 12 with mean values of 1.62, 1.59, 1.96 and 1.98, respectively, are above the criterion mean. The data showed that the majority of e-learning technologies were not used for teaching Social Studies in colleges of education in North-central Nigeria.

Step 2:

What is the difference between male and female lecturers on the usability of e-learning technologies for teaching Social Studies in Colleges of Education in North-Central, Nigeria?

Table 2: The Mean Scores And Standard Deviation On The Difference Between Male And Female Lecturers On The Usability Of E-Learning Technologies In Colleges Of Education

Gender	N	Mean	Std. Deviation
Male	163	17.25	2.23
Female	49	17.80	2.47

Table 2 shows that the male Social Studies lecturers had a mean score of 17.25 with a standard deviation value of 2.23, while the female Social Studies lecturers had a mean score of 17.80 with a standard deviation value of 2.47. This result reveals a difference in the value of mean scores. Therefore, it can be said that there is a difference between male and female Social Studies lecturers on the usability of e-learning technologies in colleges of education in North-Central, Nigeria.

Step 3:

What are the differences among lecturers' qualifications on the usability of e-learning technologies in Colleges of Education in North-Central, Nigeria?

Table 3 : The Mean Scores and Standard Deviation on the Difference among Lecturers' Qualifications on Usability of E-Learning Technologies

Qualifications	Mean	Std. Deviation
B.Ed	17.24	1.91
M.Ed	17.36	2.34
Ph.D	16.00	2.38
Others	18.71	2.69

Table 3 shows that the B.Ed Social Studies lecturers had a mean score of 17.24 with a standard deviation value of 1.91. The M.Ed Social Studies lecturers had a mean score of 17.36 with a standard deviation value of 2.34. The PhD Social Studies lecturers had a mean score of 16.00 with a standard deviation value of 2.38. In comparison, lecturers with other certificates had a mean score of 18.71 with a standard deviation value of 2.69. This result reveals a difference

in the value of mean scores. Therefore, it can be said that there is a difference among lecturers' qualifications in the usability of e-learning technologies for teaching Social Studies in colleges of education in North-Central, Nigeria.

Step 4:

What are the differences among lecturers' experience on usability of e-learning technologies in Colleges of Education in North-Central, Nigeria?

Table 4 : The Mean Scores and Standard Deviation on the Difference among Lecturers' Experience on the Usability of E-Learning Technologies

Experience	Mean	Std. Deviation
1-5years	17.57	2.44
6-10 years	18.64	1.64
11years & above	16.65	2.18

Table 4 shows that the 1-5-year Social Studies lecturers had a mean score of 17.57 with a standard deviation value of 2.44. The 6-10 years Social Studies lecturers had the mean score of 18.64 with a standard deviation value of 1.64, while the 11 years and above Social Studies lecturers had the mean score of 16.65 with a standard deviation value of 2.18. This result reveals a difference in the value of mean scores. Therefore, it can be said that there is a difference among lecturers' experience in the usability of e-learning technologies for teaching Social Studies in colleges of education in North-central, Nigeria.

4.1. Hypothesis Testing

Ho₁: There is no significant difference in the usability of e-learning technologies for teaching Social Studies in Colleges of Education based on gender.

Table 5: T-Test of Male and Female Social Studies Lecturers' Usability of E-Learning Technologies

Gender	N	Mean	Std.D	Df	t	Sig	Remark
Male	163	17.2454	2.23356	210	1.476	.141	NS
Female	49	17.7959	2.46627				

Table 5 shows the table shows that there was no significant difference between the male and female usability of e-learning technologies for teaching Social Studies in colleges of education. (df = 210; t= 1.476; p>.141). Based on this result, hypothesis 1 is not rejected.

Ho₂: There is no significant difference in the Social Studies lecturers' qualification on usability of e-learning technologies in Colleges of Education, North-central, Nigeria.

Table 6: ANOVA of Social Studies Lecturers' Qualifications on Usability of E-Learning Technologies in Colleges of Education

Sources of Variance	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	85.817	3	28.606	5.801	.001
Within Groups	1025.744	208	4.931		
Total	1111.561	211			

Table 6 shows a significant difference in the Social Studies lecturers' qualifications on usability of e-learning technologies in colleges of education in North-central, Nigeria, since $p = .001$. This implies that the null hypothesis was rejected due to the fact that the significance value (.001) was found to be less than the alpha value (0.05). Therefore, the null hypothesis was able to establish that a significant difference existed among Social Studies lecturers' qualifications on the usability of e-learning technologies in colleges of education. Therefore, the mean difference is shown in Table 7.

Table 7: Post HOC Analysis

(I) qualification	(J) qualification	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
B.Ed	M.Ed	-.11082	.34595	.989	-1.0068	.7852
	Ph.D	1.24444	.57338	.135	-.2406	2.7295
	Others	-1.46984*	.48054	.013	-2.7144	-.2253
M.Ed	B.Ed	.11082	.34595	.989	-.7852	1.0068
	Ph.D	1.35526	.58211	.095	-.1524	2.8629
	Others	-1.35902*	.49093	.031	-2.6305	-.0876
Ph.D	B.Ed	-1.24444	.57338	.135	-2.7295	.2406
	M.Ed	-1.35526	.58211	.095	-2.8629	.1524
	Ph.D	-2.71429*	.67089	.000	-4.4518	-.9767
Others	B.Ed	1.46984*	.48054	.013	.2253	2.7144
	M.Ed	1.35902*	.49093	.031	.0876	2.6305
	Ph.D	2.71429*	.67089	.000	.9767	4.4518
*. The mean difference is significant at the 0.05 level.						

Table 7 shows the post hoc analysis, multiple comparison, which indicates the mean difference is significant at the 0.05 level.

Ho₃: There is no significant difference in the Social Studies lecturers' experience on usability of e-learning technologies in Colleges of Education, North-Central, Nigeria.

Table 8: ANOVA of Social Studies Lecturers' Experience on Usability of E-Learning Technologies in Colleges of Education

Sources of variance	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	123.768	2	61.884	13.094	.000
Within Groups	987.793	209	4.726		
Total	1111.561	211			

Table 8 shows a significant difference in the Social Studies lecturers' experience on usability of e-learning technologies in colleges of education, since $p = .000$, which implies that the null hypothesis was rejected due to the fact that the significant value (.000) was found to be less than the alpha value (0.05). This means that there was a significant difference among Social Studies lecturers' experience with the usability of e-learning technologies in the College of Education. Therefore, the mean difference is shown in Table 9

Table 9: Post HOC Analysis

(I) experience	(J) experience	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1-5yrs	6-10years	-1.06692*	.41600	.030	-2.0489	-.0849
	11years & above	.92361*	.33893	.019	.1236	1.7237
6-10yrs	1-5years	1.06692*	.41600	.030	.0849	2.0489
	11years & above	1.99053*	.39579	.000	1.0563	2.9248
11yrs	1-5years	-.92361*	.33893	.019	-1.7237	-.1236
	6-10years	-1.99053*	.39579	.000	-2.9248	-1.0563
*. The mean difference is significant at the 0.05 level.						

Table 9 shows the post hoc analysis, multiple comparison, which indicates the mean difference is significant at the 0.05 level.

5. Discussion

The research findings of this study are discussed in relation to the research questions and research hypotheses. The findings of this study revealed that the majority of e-learning technologies were not used for teaching Social Studies in Colleges of Education. The findings of this study agreed with those of Economic Times (2022), which noted that e-learning technologies were not used wholeheartedly, as it was assumed that this system lacked the human element required in learning. The finding of this study also contradicts the Economic Times (2022), which opined that books are gradually getting replaced by electronic educational materials like optical discs or pen drives. The findings of this study showed that there was no significant difference between male and female lecturers on the usability of e-learning technologies for teaching Social Studies in colleges of education. This finding contradicts the finding of Ezeudu and Obi (2013), who observed that gender differences exist in student achievement in science and other subjects, such as Social Studies. Also, Muhammed (2010) stressed that males performed better than females in terms of academic outcomes.

The findings of this study revealed that there was a significant difference in the Social Studies lecturers' qualification and experience on the usability of e-learning technologies in Colleges of Education in North-central, Nigeria. The findings of this study support the findings of Termit and Samli (2014), who revealed that 78% of the respondents had a negative attitude towards the use of e-learning technologies in the classroom, while lack of adequate qualification and experience were factors that were responsible for this negative attitude towards the use of ICT. It can therefore be concluded that even if ICT is made available in the sampled schools, only 22% of the teachers were ready to use e-learning technologies in their teaching. This percentage is too low when compared with the percentage of those who had a negative attitude toward the usability of ICT for instruction.

6. Conclusion

Based on the findings of the study, the majority of e-learning technologies were not used for teaching Social Studies in colleges of education in the study. There was no significant difference in the usability of e-learning technologies for teaching Social Studies in Colleges of Education based on gender. There was a significant difference in the Social Studies lecturers' qualifications on the usability of e-learning technologies in Colleges of Education in North-central, Nigeria. Also, there was a significant difference in the Social Studies lecturers' experience on usability of e-learning technologies in Colleges of Education in North-Central, Nigeria.

Recommendations:

- Educational policy makers should collaborate with ICT experts to develop courseware that will strengthen the College of Education lecturers' usability of e-learning technologies for educational purposes.
- Proprietors and stakeholders in Colleges of Education (Federal and State-owned) should endeavour to make e-learning technologies aware and usable to lecturers in order to sustain and enhance the usability of e-learning technologies for teaching.
- Lecturers and students should be sensitised through seminars and workshops on the need to maximally utilise e-learning technologies in teaching and learning in Colleges of Education.
- College of Education administrators should ensure to introduce courses that will make e-learning technologies among the teaching platforms for lecturers.
- Government and proprietors of Colleges of Education should provide e-learning technologies such as computers, tablets, etc. to lecturers for teaching of Social Studies.

References

- [1] Rashid A. Aderinoye, K. O. Ojokheta and A. A. Olojede, "Integrating Mobile Learning into Nomadic Education Programme in Nigeria: Issues and Perspectives," *The International Review of Research in Open and Distance Learning*, vol. 8, no 2, pp. 62-71, 2007. | [Google Scholar](#) | [Publisher Site](#) |
- [2] F. Adesoji, *Female Participation in Science, Mathematics and Technology Education*, Monthly Lecture of WORDOC, University of Ibadan, 2002. | [Google Scholar](#) |

- [3] Economic Times, Definition of 'E-learning', 2022. [Online]: Available: <https://economictimes.indiatimes.com/definition/e-learning>
- [4] U. A. Egbita, "Students' Perceived Challenges on the Use of Online Social Network as a Tool for Facilitating E-learning in Nigeria Secondary Schools," *Journal of Educational Media & Technology*, vol. 20, no. 1, pp. 205 – 215, 2016.
- [5] ElearningNC.gov. "What is E-learning?" 2022. [Online]: Available: www.elearningnc.gov/about_elearning/what_is_elearning
- [6] Etiubon Rebecca Ufonabasi, and Benson Rose Friday, "Teacher Qualification and Experience as Determinants of Quality Chemistry Education in Nigeria," *Journal of Education and Practice*, vol. 5, no. 24, pp. 124-132, 2014. |[Google Scholar](#)|[Publisher Site](#)|
- [7] FO Ezeudu, and TN Obi, "Effect of Gender and Location on Students' Achievement in Chemistry in Secondary Schools in Nsukka Local Government Area of Enugu State, Nigeria," *Research on Humanities and Social Sciences*, vol. 3, no. 15, pp. 50-55, 2013. |[Google Scholar](#)| [Publisher Site](#)|
- [8] Federal Republic of Nigeria, *National Policy on Education*, NERDC Press, pp.1-87, 2012. | [Publisher Site](#) |
- [9] A.A. Jekayinfa, "Availability of Resources for the Implementation of Social Studies Curriculum at the Senior Secondary School Level in Nigeria," *African Journal of Education Studies*, vol. 3, no. 1, pp. 43-54, 2005. |[Google Scholar](#)|
- [10] M.I. Junaid, *Nigeria Certificate in Education, Minimum Standards*, National Commission for Colleges of Education, pp. 1-53, 2012.
- [11] Demirbilek Muhammed, "Investigating Attitudes of Adult Educators Towards Educational Mobile Media and Games in Eight European Countries," *Journal of Information Technology Education*, vol. 9, no. 2, pp. 235-247, 2010. |[Google Scholar](#)| [Publisher Site](#)|
- [12] Rebecca Mullen, and Linda Wedwick, "Avoiding the Digital Abyss: Getting Started in the Classroom with YouTube, Digital Stories and Blogs," *The Clearing House*, vol. 82, no. 2, pp. 66-69, 2008. |[Google Scholar](#)| [Publisher Site](#)|
- [13] K.K. Nicholas, W.W. Gregory, and I.P. Anselemo, "Evaluating Usability of E-learning Systems in Universities," *International Journal of Advanced Computer Sciences and Applications*, vol. 5, no. 8, 2014. |[Google Scholar](#)| [Publisher Site](#)|
- [14] NTI, NCE/DLS Course Book on Social Studies, Cycle 3. National Teachers Institute, 2006.
- [15] S. A. Ogunbiyi, "Evaluation of Teachers' Implementation of Social Studies Curriculum in Upper Basic Schools in Irepodun L.G.A of Kwara State," Unpublished Master's Dissertation, University of Ilorin, Ilorin, Nigeria, 2018.
- [16] E. Okeke, "Gender Sensitivity in Classroom Interactions," *A paper presented at an Education Tax Fund/National Commission for Colleges of Education workshop*, Asaba, 2004.
- [17] OLANIYI Saheed Salawudeen, E-learning Applications: The Nigerian Experience, pp. 1-11, 2020. |[Publisher Site](#)|
- [18] O.K. Olasedidun, "Relationship Among Lecturers' Perceived Usefulness, Ease of Use, Attitude and Intention Towards Social-Media in South-West, Nigeria," Unpublished Doctoral Thesis, Department of Educational Technology, University of Ilorin, Ilorin, Nigeria, 2014. |[Google Scholar](#)|
- [19] Pyramid Research, "The Impact of Mobile Services in Nigeria: How Mobile Applications are Transforming Economics and Social Activities," pp. 1-150, 2010. |[Publisher Site](#)|
- [20] Taiba M. Sadeq, Rahima S. Akbar, and Hanan A. Taqi, "Students Views on Utilizing Mobile Applications in Teaching and Learning: Interest, Importance and Efficiency," *International Journal of Education*, vol. 3, no. 3, pp. 10-16, 2015. |[Publisher Site](#)|
- [21] Termit Kaur Ranjit Singh, and Samli Chan, "Teacher Readiness on ICT Integration in Teaching-Learning: A Malaysian Case Study," *International Journal of Asian Social Sciences*, vol. 4, no. 7, pp. 874-885, 2014. |[Publisher Site](#)|
- [22] UJ Udousoro, "The Effects of Gender and Mathematics Ability on Academic Performance of Students in Chemistry," *African Research Review An International Multidisciplinary Journal*, vol. 5, no. 4, pp. 201-213, 2011. |[Publisher Site](#)|