ASSESSMENT OF INFORMATION AND COMMUNICATION TECHNOLOGY'S SKILLS OF PRE-SERVICE SOCIAL STUDIES TEACHERS IN SOUTHWESTERN NIGERIA

By

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Abstract
The study examined Information and Communication Technology's (ICT's) skills of Social Studies (SS) prospective teachers in South-west (SW), Nigeria. Sample used are from two Colleges of Education (CE) in SW, Nigeria. One hundred and eighty six (186) Part Two CE SS Students participated in the research. Two research questions were raised and answered in the study. The results showed that prospective SS Teachers rated themselves high in ICT skills while they performed very poor in ICT Laboratory Skill Test (LST). 91.30% of them scored below average in LST and 8.70% got average score. This indicates that the prospective educators were very poor in performing basic ICT tasks. The study recommended that ICT contents that require basic ICT skills should be incorporated into NCE SS curriculum.

Keywords: Information and Communication Technology; Social Studies; Pre-service Teachers; Teacher-training; Nigeria Certificate in Education (NCE)

Introduction

In this 21st Century, ICT has made appreciable and dynamic impacts in all aspects of human endeavours. ICT has dominated and transformed all sectors of the society. Since the invention of ICT, it has played key roles in education sector. It has revolutionized educational practices, researches as well as teaching and learning process. According to Garg (2022), the use of ICT in education adds value in teaching and learning by enhancing teaching and learning effectiveness as well as promoting students' engagement with collaborative learning. In recognition of ICT proven potentials, the Nigerian government, in 2001, established National Information Technology Development (NITD) to integrate Information Technology (IT) into the mainstream of training in Nigeria.

However, ICT education is at low level of implementation in Nigeria and particularly in teacher education programme. Presently, most pre-service and in-service teachers are not well equipped with ICT knowledge and skills that could enable them to effectively make use of ICT devices in their classroom (Falade & Ishola, 2023). Ede (2012) and Nwakonobi and Obiagwu (2012) studied the need to integrate ICT into the teaching of mathematics and biology respectively while Amosun, Falade and Falade (2015) examined ICT's knowledge and attitude of pre-service Social Studies teachers. These studies showed that although mathematics, biology and SS educators under tutoring appreciated the use of ICT but unfortunately, ICT related concepts were not integrated into their training programme.

Emphasising the deficiency of NCE Social Studies curriculum with respect to the development of ICT knowledge and skills in pre-service Social Studies teachers, Falade and Ishola (2023) expressed that ICT concepts and tools that could help student-teachers to acquire some basic ICT knowledge and skills are not incorporated into the NCE Social Studies curriculum. Although

the curriculum provided for some General Special Elective (GSE) courses for Social Studies students like *Media and Information Literacy I, II, III and IV; Introduction to Computer Studies I, II and III; and Science and Technology in Society,* however, these courses are not adequate for effective training and development of ICT knowledge and skills in Social Studies pre-service teachers.

Recent studies on ICT and the teaching of Social Studies emphasize the need for the development of ICT skills by both Social Studies teachers and learners (Melis & Fatima, 2017; Ratheeswari, 2018; Almarshad, 2022). Tremendous task is required from Social Studies teachers; as they are expected to keep abreast of the developments, not only in the subject but in other fields of human endeavour as well. Social Studies teachers should be resource persons providing current information for other teachers and community members; they should be ready to learn and develop their potentials (Inocian & Hermosa, 2014). Therefore, Social Studies' teacher-education curriculum should be capable of developing in pre-service teachers the ICT knowledge and skills that will enable them to take their position in the school system and community.

Social Studies is flexible and relative in scope and nature. It aims at developing in learners those skills that will enable them to solve personal and societal problems. Since the society is not static, the spread and nature of SS change from time to time. The curriculum is designed to prepare and equip learners with the readiness and capabilities to adjust to changes in the local and larger communities (Ross, 2020).

Contemporary events and global challenges require that Social Studies' teacher-education programme should incorporate all that learners need if they are to benefit from the wider opportunities the future will bring and information technology is part of that future. According to Kwenin (2019), the quality of Social Studies teachers and the effectiveness of their instructional strategies in the classroom are crucial in the effective teaching of Social Studies. Hence, teacher- education programme should be designed to adjust its course and to relate to new technologies. The NCE Social Studies' teachers education programme, which prepares teachers for Basic school system, should be broad and incorporate the latest development in information technology (Falade & Ishola, 2023).

Recent developments in IT pose great challenges for training SS instructors in Nigerian teacher-training institutions. Social studies teachers should be trained to acquire relevant ICT skills that are important for them to function effectively and adopt ICT tools. More importantly, they should possess the knowledge and competencies that will enable them to develop in the learners those social, cognitive and manipulative skills that are essential for effective and productive citizenship. Hence, integration of ICT courses and tools into Social Studies NCE curriculum will to help pre-service teachers to develop ICT knowledge and skills that will enable them to make use ICT tools when they become teachers (Amosun, Falade & Falade, 2015).

Objectives of the Study

The work intends to:

(i). find out pre-service SS educators' rating on ICT skills

(ii). determine ICT skills of prospective SS instructors in the area studied.

Development and Training of SS Teachers in Nigeria

SS combines many contents which focuses on interaction of man and his surroundings. Social Studies aims at sensitizing learners with the symbolic relationships between him and his environments and equipping him with the intellectual and contemporary skills required for functional living in the society (Edinyang, 2022, Uzoagba & Ebebe, 2022)). Social Studies equip learners with necessary skills and attitudes needed to make maximum use of their environment for their best advantage. This also implies that the subject

enables learners to live fulfilled and happy life in the environment they find themselves.

According to Cal and Demirkaya (2020) Social Studies has an important place in basic education regarding primarily preparing and adapting individuals to social life. It produces ability, knowing, behaviour and good values to become effective citizens. Social Studies shows us the manner of living; the way we influence and how we are affected by things in our environment. SS equips learners with knowledge, skills and potentials to proffer solutions to problems encountered in his/her day-to-day interaction with the environment.

In our country, the teaching of SS, as integrated study, started in 1963. SS, as a school subject was introduced at Ayetoro Comprehensive High School, Egbado. Ajiboye (2003) pointed out that this marked the beginning of what is presently called the integrated Social Studies curriculum in Nigeria. The growing concern for educational reform in Africa in the 1960s culminated in the organization of various workshops, seminars and conferences among which was the Mombassa conference of 1968. Among other things, the Mombassa conference stressed the urgent need to reflect African culture and environment through the teaching and learning of Social Studies. Participants at the conference finally came up with a Social Studies curriculum, which was accepted by all for adoption to suit the local needs of the participating countries in Africa.

At the 1969 National Curriculum Conference in Nigeria, SS gained the status of school subject the country. Social Studies Association of Nigeria (SOSAN) was formed same year. SOSAN joined the Nigerian Educational Research and Development Council (NERDC) to produce the first SS syllabus for primary schools in 1971. This is because primary school was considered as foundation for any kind of training since the pupils are in their formative years (Ogundare, 2000). However, SOSAN and NERDC went further to produce secondary school Social Studies syllabus in 1973.

The teaching of SS took further leaps in 1980s. Particularly, the 1971 SS syllabus for elementary classes was revised by NERDC and published by the Federal Ministry of Education in 1983 as the national curriculum for primary school SS. Also, the Joint Consultative Committee (JCC) approved the Junior Secondary (JS) SS syllabus.

Since the commencement of SS education in Nigeria, efforts are made to train and develop teachers that could effectively teach the subject. According to Ogundare (2000), realizing the necessity of training primary school Social Studies' teachers, NERDC produced syllabus for Teachers Colleges in 1972. The Institute of Education, Ahmadu Bello University (ABU), Zaria, commenced SS at Post Graduate Diploma in Education (PGDE) and also started Degree courses in SS in 1972. In addition, the Advanced Teachers' College, Sokoto commenced NCE programme in Social Studies in 1972. Between 1974 and 1975 the Institute of Education, University of Lagos introduced Social Studies at Pre-NCE and NCE levels. Today, teacher training programme in Social Studies has been incorporated into the programme of most public universities, public and private colleges of education and some private universities in Nigeria.

Limitations to the Implementation of ICT in Social Studies Education Curriculum

Federal Republic of Nigeria (2010) posits that learning activities are confronted with problems of shortage of ICT skills and instructors which are important for achieving education that is engaging, empowering and enriching. Some of the limitations to proper application of ICT in education and SS education in particular include:

End users of NCE SS curriculum are not often involved when the learning programme is designed. Teacher educators who are responsible for the implementation of SS course contents are neglected in curriculum review process. Instructors are usually given syllabus or scheme of work to use in the classroom without their input (Owanenoh,

2023). Hence, relevant contents are often excluded.

Another limitation is that teacher educators do not constantly apply ICT tools in teacher-training programmes. Some teacher educators are not efficient in ICT application. ICT is mainly used to make their jobs easier instead of making learning more effective (Federal Republic of Nigeria, 2010). The outcome is that instructional process is yet to embrace current educational practice which highlight student-centred learning where the instructor operates as facilitator rather than source of knowledge.

In addition, there is low quality or outrightly non-availability of ICT facilities for instruction and administrative activities. There is a dearth of ICT infrastructure especially in public and rural schools. There are wide gaps between schools in cities and villages as well as schools owned by governments and individuals with respect to availability of ICT personnel and resources. Urban schools and private schools tend to have more ICT personnel and resources.

None availability of electricity is another major limitation to the application of ICT in schools. Proper use of ICT requires regular electricity. In Nigeria, where most organizations depend on generating plant for power supply, ICT usage is negatively affected.

Lastly, funds are not available to provide the drive for ICT education in order to attain national vision. Ede (2012) observes that lack of adequate expertise, limited internet connectivity, poor infrastructures, high cost of hardware and software among others are the challenges confronting ICTs in teacher education. The condition of ICT in our school system is far from what it is supposed to be. This reinforces the need for full integration of ICT in education in the country (Federal Republic of Nigeria, 2010).

Methods

This work used survey design to assess the ICT rating and laboratory ability of SS tutors in CE in South-west, Nigeria. The participants were made up of One hundred and eighty six (186) year Two (II) NCE learners from two CE in South-west, Nigeria. They were selected through straightforward and purposive sampling techniques. The reason why part II NCE students were used for the study was because, they had already spent a year on NCE programme and they had a year ahead of them to graduate. As such, they had been exposed to a number of NCE Social Studies courses.

An instrument that was personally designed was used for the research. The instrument is titled Information Communication Technology Skill and Laboratory Test (ICTSLT). The ICTSLT was made to find out the ICT potential of prospective SS teachers. The ICTSLT consists three parts. Section A focuses on bio-data of the respondents. Part B is made up of twenty (20) ICT skill-response items. Questions were raised to obtain the perception of respondents on their ICT skills. The third aspect is made up of three (3) laboratory examination questions. The questions were asked so that prospective tutors can perform some ICT assignments which could be used to determine their ICT potential.

The ICTSLT was validated by four SS and computer lecturers from Adeyemi College of Education, Ondo. Final draft of the instrument reflected their input.

Research questions that guided this research are:

(i) Will the pre-service SS tutors rate themselves high in ICT skills?
(ii) Will pre-service SS teachers get good mark in laboratory ability test?.

The researcher visited the two Colleges of Education used for the study and administered the ICTSLT on SS instructors under training. This was done through the assistance of two lecturers in the Colleges. The research procedure involved two stages:

Stage 1: The pre-service teachers were given the ICTSLT to respond to sections A and B of the instrument.

Stage 2: Twenty three (23) of the tutors under training were randomly chosen to take part in a laboratory ICT skill test. The test could not be done in the College computer laboratory as designed. However, it was done in an improvised computer laboratory in the Department. Section C of the ICTSLT instrument was used for the laboratory test. The pre-service teachers were given marks according to their ability in the ICT work.

Analysis of data was done using descriptive statistics. Frequency distribution and percentages were adopted to answer the research query raised for the study

Results

Table 1: Pre-service SS Tutors Rating in ICT skills

RQ 1: Will pre-service SS tutors rate themselves high in ICT skills?

S/N	STATEMENTS	EFFICI-ENTLY	%	FAI-RLY	%	NOT AT ALL	%	RAN-KING
1	I can perform basic word-processing tasks.	179	96.2	7	3.8	0	0	1st
2	I can perform advanced document formatting tasks.	39	20.9	147	79.0	0	0	17th
3	I can create simple computer slide presentations.	148	79.6	38	20.4	0	0	4th
4	I can design presentations with multimedia elements.	74	39.8	38	20.4	74	39.8	11th
5	I can edit and design graphics.	144	77.4	39	20.9	0	0	6th
6	I can communicate with others via email and other network tools.	38	20.4	74	39.8	74	39.8	18th
7	I can publish and deliver the results of a research activity using ICT presentation tools and networks.	111	59.7	75	40.3	0	0	8th
8	I can collaborate with others using various ICT tools.	76	40.9	38	20.4	72	38.7	10th

9	I can navigate the Internet and access other digital resources.	144	77.4	42	25.6	0	0	**6th**
10	I can search and gather information from the Internet and other digital resources.	66	35.5	120	64.5	0	0	**14th**
11	I can operate a computer and software.	66	35.5	120	64.5	0	0	**14th**
12	I can manage files, folders and handle other computer storage tasks.	179	96.2	7	3.8	0	0	**1st**
13	I can perform basic tasks common to many software applications.	20	10.8	136	73.1	30	16.1	**20th**
14	I can perform advanced tasks common to many software applications.	40	21.5	106	56.9	40	21.5	**16th**
15	I can create simple images.	41	75.8	104	55.9	41	75.8	**5th**
16	I can make inquiry through web quest	38	20.4	73	39.2	75	40.3	**18th**
17	I can independently make use of an interactive white board	71	38.1	70	37.6	45	24.2	**13th**
18	During my last teaching practice, I made use of ICT devices	150	80.7	36	19.4	0	0	**3rd**
19	I am an e-learner	72	38.7	70	37.6	44	23.7	**12th**
20	**I can use mobile learning devices**	**110**	**59.1**	**5**	**2.7**	**71**	**38.2**	**9th**

Source: Researcher's Analysis (2024)

Table 1 shows that SS tutors under training rated themselves high in ICT skills. The two skills that were ranked first are items 1 and 12. On item 1, 96.2% of the prospective SS educators said that they could perform basic word-processing tasks effectively. Also on item 12, 96.2% of responded that they could manage files, folders and handle other computer storage tasks effectively. On item 3, 79.6 % of they responded that they could create simple computer slide presentations. Generally, the pre-service SS instructors rated themselves to be efficient or fairly efficient on most of the ICT skills. It is only on item 15 that they rated themselves low in ICT skills. That is, 75.8% of them responded that they could not create simple images.

RQ 2: Will pre-service SS teachers get good mark in laboratory ability test?

Table 2: ICT Laboratory Skill Scores of Pre-service SS Instructors

Laboratory skill Score	Frequency	Percentage	Rating	Group % & Remarks
0-4	13	56.52%	Very poor	**91.30%**
5-9	4	17.39%	Poor	**Below Average**
10-14	4	17.39%	Fair	
15-19	2	8.7%	Average	**8.70%**
				Average
20-24	0	0	Good	**0**
25-30	**0**	**0**	**Excellent**	**Above Average**

Source: Researcher's Analysis (2024)

Total Score = 30

Table 2 reveals that 91.30% of prospective SS teachers scored below average in ICT laboratory test while 8.70% of them scored average. It shows that the prospective SS teachers were very poor in performing ICT tasks.

Discussions of Findings

One of the major concerns of this study was to investigate ICT skills of future SS tutors in the study area. To do this, all the sampled NCE two Social Studies students were exposed to a 20-item self-rated ICT skill questionnaire. Also, some of the students were randomly selected to participate in an ICT laboratory skill test. Results on table 1 reveal that 96.2% of the pre-service Social Studies teachers responded that they could perform basic word-processing tasks effectively. Also 96.2% of SS prospective educators responded that they could manage files, folders and handle other computer storage tasks effectively. Again, 79.6 % of them said that they could create simple computer slide presentations. It was only on a single item that they rated themselves low in ICT skills. The prospective SS tutors believed that they were efficient in ICT skills.

However, the results of ICT laboratory skills test negate the above findings. Table 2 showed that 91.30% of them got less than average in the ICT laboratory skill task while 8.70% and 0% scored average and above average respectively. The major reason that could be responsible for this sharp contrast is that the future SS instructors merely rated themselves high in ICT response skill questionnaire without possessing the potential to carry out ICT assignments. Many of them rated their skill on ICT tasks as 'efficient' and 'fair' while

only few of them were sincere to indicate that they could not perform some basic ICT tasks. The ICT laboratory skill test gave the true picture of the ICT skills of the prospective SS teachers. The experience of the researcher with the pre-service SS teachers showed that they lack basic skills for simple ICT tasks. Many of them could neither cold boot the computer nor perform basic word processing tasks. Also, most of them could not surf the net for any information on SS. This finding is supported by Sharebu (2012) that there was little or no time for skill development in the application of ICT in the Nigeria teacher education programme. Also Nwokeocha and Ezeahurukwe (2012) concluded that pre-service teachers were not empowered with necessary ICT skills that would meet the challenges of this digital age. In view of this, Almarshad (2022); Melis & Fatima (2017) emphasized that Social Studies teachers are in need of training that will improve their skills to be able to adopt modern teaching trends in a world characterized by its rabid change and great technological advance.

Conclusion

Acquisition of ICT skills is essential for prospective SS teachers. In this 21st century, Social Studies teachers should possess ICT skills that will enable them to effectively operate ICT tools in the classroom. The study highlight that although future SS teachers rated themselves high in ICT skills but they scored very poor in ICT laboratory assignments. They could not perform simple ICT tasks. This indicates that they lack basic ICT skills are essential for the application of ICT tools and strategies in the classroom.

Recommendations

Based on the results of this study it is suggested that courses on ICT should be incorporated into the NCE teacher education programme in Nigeria. Also, all CE in Nigeria should be mandated to provide SS workshop. Such training hall should have ICT facilities. Moreover, SS teacher-trainers in our CE should adopt pattern of teaching that would stimulate students to get part of the instructional materials from the internet rather than limiting them to lecture notes and text books. Lastly, the government should provide internet and other ICT facilities in the campuses. This will enhance teaching, learning and research activities.

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