

**CHALLENGES OF INFORMATION AND  
COMMUNICATION TECHNOLOGY DEVELOPMENT  
FOR SENIOR SECONDARY SCHOOLS IN YAGBA  
EAST LOCAL GOVERNMENT AREA KOGI STATE**

Florence Olutunu DARAMOLA Ph.D.

Department of Science Education, Faculty of Education,  
University of Ilorin, Nigeria

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Abstract

This paper examines the challenges of Information and Communication Technology development for senior secondary education in Yagba East LGA, Kogi State. Random sampling techniques was used to select a total number of thirty six students (36) in the selected six (6) secondary schools, with a structured questionnaire used to elicit information from the respondents. Four research questions were generated and frequency count and simple percentages were used for the analysis. The results indicate that there are no ICT laboratories in the school. It is recommended that Local and State Governments, philanthropists and multinational companies should assist in building ICT laboratories in schools.

Introduction

The advancement in knowledge based development paradigm as stipulated in Nigeria vision 2020, issues of access to the local and global pool of knowledge and information become of paramount importance over the years, advancement has always caused some important

changes in the society such as the agricultural world which later resulted into the industrial revolution (industrialized world). Lee (2009) as cited by Schema (2009) was of the view that the world has gone through three revolutions in the dissemination of knowledge. The first revolution came with the invention of written language. The second manifested through the development of moveable types and books, the third revolution became evident with the advent of Information and Communication Technology ICT. Isoun (2003) opines that in the history of civilization, no work of sciences has so comprehensively impacted on the course of human development as ICT. He further stressed that, for Nigeria, the rise of ICT is an opportunity to overcome historical disabilities and once again be the master of our national interest.

Nowadays, one can easily foresee or predict the future of education when children play computer games or even watch a well packaged film show. It occurs that they easily get engaged or excited during the process of interacting with the game or watching the film. A good curriculum of this event is that children tends to prefer the technological or computerized world of ours as they interact with ICT rather than the process of following information passively as in the traditional methods of lecture (for delivery of knowledge), the tutorial (for discussion of knowledge) and the essay (for demonstrating of knowledge inculcation) from the beginning to the end of the class activity or school day. This process as explained above can be said to be a testament to the definition of learning (Martin, 2005). He maintained that learning should be a situated activity, inseparable from the learner's life world in which meaning is constructed by the learner as an intentional act in a social context. This shows that learning should have tremendous potential to enhance the development of an individual which will lead to fundamental restructuring of a nation and the global world at large.

Oshinubi (2002) in Asim, Kalu and Ani (2003) noted that since the information age is essentially driven by knowledge within the concept of ICT, if the development of skills in ICT is ignored there will be increase division between information haves and have not. It has been observed that the Nigerian youths or populace lack modern skills, the youths have been called upon to use ICT as a platform for skills acquisition as the world begins to experience a revolution where

emphasis would be based on knowledge-based economy rather than on an industrial infinite resource economy like in Nigeria where there is heavy reliance on oil for its revenue generation.

This study sees challenges as factors that hinder the development of ICT for senior secondary education amongst which are low levels of computer literacy among teachers, dearth of technical support staff, low level of funding and lack of adequate power supply. According to Bryant (2002), Nigeria has the potential to be a developed nation, a world leader and a world power only if there is a process whereby infrastructure which are of great benefit to the welfare of the Nigerian Citizens can be conceived, implemented and explained. This therefore brings the challenges that ICT development is a global resolution and also a subject of great significance to mankind (Uwaje, 2000, in Asim, Kalu & Ani, 2003).

In a starting point of a developmental process, one would expect a proper comprehensive structure to be in place where by students can gain access to ICT. Although the use of Micro-computer (i.e. ICTs) may jeopardize the quest for creativity in that it could encourage exceptional students to heavily rely on technology rather than working to improve their ability through their interaction with natural means. It can be effective as a learning tool in the hands of experienced teachers. Also, an appropriate structure is expected from teachers' who would have to be competent in the use of ICTs. Apart from the set up, teachers need to make informed choices relating to pedagogical approach to trainees, need and learning objectives. It is based on this that technology can be successful in classroom. (Mackinnon, 2002 in Busari, 2003). An affirmation to the above according to World Bank (2002) is that when properly integrated into a broader educational programme, the most important use of ICT in education is as a pedagogical tool.

This study examines the challenges of information and communication technology development for secondary education in Yagba East Local Government Area Kogi state. The concept of ICT development is viewed in two perspectives namely ICTs in education focusing on the crucial issue of how people communicate and learn in an electronic environment (i.e. adoption of ICT in teaching and learning process) while ICTs for education connotes the development

of ICT specifically for teaching and learning process (Olakulehin, 2007).

For proper participation in the global economy and ensuring sustainable development in developing countries, the international development community in 2000 adopted the Millennium Development Goals (MDGS) that aim to eradicate global poverty, hunger and inequality by 2015. In addition, UNESCO Education for All (EFA) principle provided a more specific set of objectives for the education sector in which ICTs as a tool can be used to achieve and enhance the quality of education and to support teacher training. For students to be actively involved in science learning, the use of ICT gadgets will be of great importance. On the other hand, teachers should not see these devices as an end in themselves but rather the means to achieving the aims and objectives of acquiring scientific knowledge (Cirfat, Zumyil & Ezema. 2003).

In Kogi State, lack of ICT and inability of teachers to use it have deprived students the much desired multimedia learning opportunity (Olatokun & Folaranmi, 2008). In the light of the above, this study seeks to examine the challenges of information and communication technology development for Senior Secondary Education in Yagba East Local Government Area of Kogi State.

#### Purpose of the study

The main purpose of this study is to examine the challenges of information and communication technology development for senior secondary education in Yagba East Local Government Area, Kogi State. Specifically, the study examined:

1. challenges in the provision for ICT for instruction in the schools,
2. challenges with type of information and communication technologies available in the schools,
3. challenges in the frequency of ICT use for presenting instruction in the classroom,
4. challenges in ways in which those technologies can assist in classroom instruction in the school.

#### Research Questions

Answers were sought for the following research questions:

- (1) Do the school authorities in Yagba West LGA have ICT for

instruction?

- (2) What types of challenges do the teachers have with regards to ICT in the local government?
- (3) Do teachers use ICT for instruction in the local government?
- (4) What are the challenges confronting teachers in utilizing ICT?

### Methodology

The study employed the descriptive survey design. The population for the study comprised all Senior Secondary School Students in Yagba East LGA, Kogi State. However the target population comprises of thirty six (36) students who were randomly selected from six (6) schools to form the sample. The instrument used for this study was a questionnaire tagged challenges of information and communication technology development for Senior Secondary Education in Yagba East LGA, Kogi State. The (COIACTDFSSEQ) were given to lecturers who are experts in the field and other lecturers in the Department of Science Education University of Ilorin for content validity (COIACTDFSSEQ) before it were administered to the students.

### Result and Discussion

Four (4) research questions were raised to guide the study. In answering the questions, frequency count and percentages were used in analyzing the results. The analyses were done according to the research question as follows.

Research Question 1: Do the school authorities in Yagba West LGA have ICT for instruction?

#### Questionnaire item description

- Senior secondary schools in Yagba East LGA have ICT Laboratories
- Senior Secondary Schools in Yagba East LGA have well equipped ICT laboratories.
- Teachers of senior secondary school in Yagba East LGA make use of ICT while teaching

Table 1: Teachers' responses to availability of ICT for instruction in their schools

SA	E	A	%	D	%	SD	%	TOTAL	
0	0	6	16.67	24	66.67	6	16.67	36	100
0	0	3	8.36	10	27.77	23	63.88	36	100
0	0	6	16.67	12	33.34	18	50	36	100

From table 1, it can be revealed that most of the secondary schools in Yagba East LGA do not have ICT Laboratories. Out of 36 respondents 6 (16.67%) agreed, 24 (66.67%) disagreed and 6 (16.67%) strongly disagreed. From questionnaire item 2 which states that there are no well equipped laboratories. Out of 36 respondents 3 (3.36%) agreed, 10 (27.77%) disagreed and 23 (63.88%) strongly disagreed. Item 3 of the questionnaire shows that teachers only make use of ICT for instruction only when they are opportuned. Out of 36 respondents, 6 (16.67%) agreed, 12 (33.34%) disagreed and 18 (50%) strongly disagreed.

Non-availability or inadequate provision of ICT facilities is a major challenge of information and communication technology development for Senior Secondary Education in Yagba East L.G.A., Kogi State.

Research Question 2: What types of challenges do the teachers have with regards to ICT?

Questionnaire item description

- Modern ICT is not available in Senior Secondary Schools in Yagba East LGA, Kogi State.
- Computers, Slide projectors, instructional television etc. are not available in Yagba East Senior Secondary schools.
- The available ICT is not enough to cater for teaching and learning activity.

Table 2: Teacher's responses to challenges they face challenges do the with regards to ICT

SA	%	A	%	D	%	SD	%	TOTAL
1	2.77	7	19.44	15	41.66	13	36.11	36 100
0	0	5	13.88	14	38.88	17	47.22	36 100
0	0	2	5.55	14	38.88	20	55.55	36 100

~~Table 2 above shows that in item 4 if some of the facilities are not available, those that are available are outdated. Out of 36 respondents, 1 (2.77%) strongly agreed, 7 (19.44%) agreed, 15 (41.66%) disagreed and 13 (36.11%) strongly disagree. Item 5 reveals that ICT facilities such as slide projector, computers, instructional television etc. are scarce in Yagba East Senior Secondary schools. Out of 36 respondents 5 (13.88%) agreed, 14 (38.88%) disagreed and 20 (55.55%) strongly disagreed. Item 6 indicate that the available ICTs are not enough for teaching and learning activities. Out of 36 respondents 2 (5.55%) agreed, 14 (38.88%) disagreed and 20 (55.55%) strongly disagreed.~~

Research Question 3: Do teachers use ICT for instruction?

Questionnaire Item Description

- ICT is used in presenting instruction in classroom.
- Teachers often use ICT in teaching and learning in the classroom.
- Students are always motivated to participate more when teachers use ICT tools in presenting instructions.

Table 3: Teachers' responses to their use of ICT for instruction

SA	%	A	%	D	%	SD	%	TOTAL
1	2.77	4	11.11	19	11.11	19	33.33	36 100
2	5.55	5	13.88	17	13.88	17	33.33	36 100
19	52.77	13	36.11	4	11.11	-	-	36 100

From table 3, item 7 shows that only few teachers make use of ICTs

for presenting instructions in the classroom. Out of 36 respondents, 1 (2.77%) strongly agreed, 4 (11.11%) agreed, 19 (52.77%) disagree and 12 (33.33%) strongly disagreed. Item 8 reveals that out of the teachers who make use of ICT, out of 36 respondents 2 (5.55%) strongly agreed, 5 (13.88%) agreed, 17 (47.22%) disagreed and 12 (33.33%) strongly disagreed. Item 9 indicates that when ICT are used in presenting instructions students are actively involved in learning process. Out of 36 respondents 19 (52.77%) strongly agreed, 13 (36.11%) agreed and 4 (11.11%) disagreed.

Research Question 4: What are the challenges confronting teachers in utilizing ICT?

Questionnaire Item Description

- Teachers of Senior Secondary School in Yagba East LGA are aware of ICT usage.
- Teachers' use of ICT to complement instruction when needed in classroom.
- The challenges faced are non availability of ICT laboratories

Table 4: What are the challenges confronting teachers in utilizing ICT?

SA	%	A	%	D	%	SD	%	TOTAL
21	58.33	14	38.88	1	2.77	-	-	36 100
3	8.33	4	11.11	20	55.55	9	25	36 100
18	50	17	47.22	1	2.77	-	-	36 100

From table 4, item 10 reveals that teachers of Senior Secondary Schools in Yagba LGA are aware of ICT usage in instruction. Out of 36 respondents 21 (58.33%) strongly agreed, 14 (38.88%) agreed and only 1 (2.77%) disagreed. Item 11 show that only few teachers use ICT to complement instructions when needed in classroom. Out of 36 respondents 3 (8.33%) strongly agreed, 4 (11.11%) agreed, 20 (55.55%) disagreed and 9 (25%) strongly disagree. Item 12 revealed that the use of ICT will make learning real to the learners. Out of 36 respondents, 18 (50%) strongly agreed, 17 (47.22%) agreed and 1 (2.77%) disagreed.

### Discussion

This study examined the challenges of information and communication technology development for Senior Secondary Education in Yagba East Local Government Area, Kogi State. Based on the outcome of the study the research findings revealed that non-availability of ICT laboratories and inadequately equipped laboratories in the Schools is one of the major challenges of information and communication technology development for Senior Secondary Education in Yagba East LGA, Kogi State. This is to support the view of Agun (1984) which states that an innovation may not achieve the expected result because of lack of necessary facilities to implement it fully and effectively. The result of the second research question which showed that most of the ICT gadgets like projectors, computers, instructional television etc. are scarce in Yagba East Senior Secondary schools for instruction and also the available ICT are not enough for teaching and learning activity. Results of the third research question also showed that only few teachers make use of ICT for presenting instructions in the classroom. Teachers of Senior Secondary Education in Yagba East are aware of ICT usage in instruction but they do not use them in presenting instruction.

### Conclusion

For Nigeria to move fast into the information age, the knowledge of ICT should not be overlooked. Therefore, the knowledge which will be transmitted to its youth should be such that will ensure self realization, self actualization and lifelong career. The realization of this can only be made possible when there are adequate and reliable ICT tools or equipment for teaching and learning. Based on the result of this study, ICT laboratories are not available in the schools; teachers are also aware of ICT in instruction but cannot use them for presenting instructions.

### Recommendations

Based on the findings of this study it is hereby recommended that state and local government authorities, philanthropists and multinational companies should assist in building ICT laboratories for all the Senior Secondary Schools in the Local Government Area, as this will enhance

the teaching and learning activity and engage the students in practical work. There should be adequate provision of ICT so that it can cater for the whole teaching and learning activities. Teachers' training should also be restructured in such a way that the teachers in training will learn to face the challenges of the rapidly developing technological advancing world of ours.

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