

INFLUENCE OF EDUCATIONAL TECHNOLOGIES IN LEARNING PROCESS AT THE SECONDARY SCHOOL LEVEL

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Abstract

This paper focuses on influence of educational technologies at secondary school level in Nsukka education zone. The purpose was to investigate how instructional technologies affect learning process on secondary school pupils in Nsukka education zone. The study described the function of educational technology, educational technology demands, educational technology impact, and educational technology effectiveness. 120 copies of questionnaires were administered to 15 administrators, 30 and 75 pupils in 15 selected secondary schools in Nsukka education zone, of which all were completed and returned. The findings of this study showed that the emerging technologies are effective in the learning process of Secondary School pupils in Nsukka Education Zone. However, students are faced with problems in having access and use of emerging technologies. The study found that no educational technology was utilized in science practicals, no overhead projector or instructional television was used, and no educational excursions or exhibitions were planned. In addition, there is a scarcity of qualified educational technologists. According to the study, the secondary schools in Nsukka Educational Zone will experience an increase in creativity if the inadequate resources that are now available are used effectively and ineffective management is corrected.

Keyword: Influence, Educational Technology, Learning Process, Secondary School

Introduction

Technological developments characterize the present era. Educational institutions lay the groundwork for all sorts of technology. Secondary education plays a critical part in society's growth and is held accountable for it. Thus, secondary education can be enhanced by the application of educational technology (Coffey, 2012). Secondary schools use educational technology in the development of curriculum, the learning process, and the evaluation of students. Its scope and requirements are expanding all the time.

Due to the large use of technology in the world in which we live, the use of technology in teaching and learning is essential if we are to make a lasting impact on how students learn. The use of technology will become an even bigger priority in schools in the near future (Tutkun, 2011)

Educational technology is a field that combines aspects from other disciplines. Cognitive psychology, perception psychology, measurement, evaluation, communication, management, media, and system engineering have all been incorporated (Kenney, 2011). These components are synergistically arranged to the point that the whole is greater than the sum of its parts.

It enhances their teaching abilities, changes their teaching behavior and style, and instills a scientific mindset, attitude, and approach. Teachers can also use educational technology to convey knowledge to students. It assists the instructor in determining the extent to which the instructional objectives have been met. From audio-visual education to educational communication to Educational Technology, the sector

has advanced swiftly. There are limitations to overlapping ideas, namely across three terminologies: Educational Technology, Instructional Technology, and Communication Technology.

According to Kurt, (2010), "technology" refers to both procedures and technological creativity. The systematic application of procedures to achieve a goal is just as important as the use of technical tools to do so. Equipment and techniques are practically represented as technology's hardware and software, respectively. Christen, (2009), emphasized the employment of audio-visual equipment, or hardware, in the educational process was once thought to be the purpose of technology in education. Later innovations have used educational technology ideas, including practices and approaches for teaching and learning. In fact, this situation makes use of educational technology's software.

The COVID-19 epidemic has had a significant impact on how we teach and learn. Due to social alienation, students must increasingly become accustomed to emerging educational technologies in their learning processes. This trend is likely to continue as a new norm.

Methodology
Study Design

This study adopted a descriptive survey research design.

Population of the study

The population of the study is 120 which comprises of 15 administrator, 30 teachers and 75 students.

Instrument

A questionnaire was designed and distributed to targeted audience who are administrators, teachers and students in secondary schools. The researcher used three separate self-assessment questionnaires to survey secondary school administrators, teachers, and students in 12 secondary schools in Nsukka education zone.

Method of Data Collection

One Hundred and twenty copies of the questionnaire were distributed among the respondents. A 100% of completed questionnaire were returned and found usable.

Method of Data Analysis

Simple percentage was used in analyzing the data.

Decision Rule

A criterion percentage of 50% was adopted as cut-off point (agreement level) for the item. Consequently, any item that has a percentage value of 50% and above is regarded as agreed while any item below 50% is regarded as disagreed

Results

Table 1: distributed to the administrators

s/n	Age(Category)	No	Male	Female
1	25 – 35	-	-	-
2	36- 45	3	1	2
3	46 – above	12	5	7
	Total	15		

In Table 1, out of the 15 copies of the questionnaire distributed to the administrators, all were completed, returned and found useable for the purpose of this analysis. The age bracket of the respondents was, 25-

35 (-) while 36-45 (3) and 46-above (12).A higher number of female9 as against 6 males, constitute the study's respondents

Table 2: Opinion of administrators regarding the effect of educational technologies in Secondary School in Nsukka Education Zone (N = 15).

s/n	Items	SA(%)	A(%)	UD(%)	D(%)	SD(%)	Remark
1	The principle is well-versed in the most up-to-date technology.	33	27	7	20	13	Agree
2	Teachers are enthusiastic about the employment of innovative technology in the classroom.	47	27	0	6	20	Agree
3	Modern technologies make teaching and learning as an interactive process much easier.	40	33	13	7	7	Agree
4	Learners' perceptions have been aided by innovative technology.	47	27	0	20	6	Agree
5	Pupils' intellectual ability have been shown to improve as a result of technological innovation.	67	7	0	13	13	Agree
6	Innovative technologies enable for direct communication with other sister agencies that provide support.	40	27	13	13	7	Agree
7	Innovative technologies lays out a strategy for achieving curricular goals.	53	27	0	20	0	Agree
8	Refresher training in the use of new technologies was provided to the principal.	33	27	0	27	13	Agree
9	Innovative technologies included a wide range of topics for providing instructors with useful knowledge.	60	20	0	7	13	Agree
10	The principals' direct grip over the media has reached its limit.	33	7	0	33	27	Disagree

Table 2: It is observed from the above analysis that out of the 10 items presented, 9 were agreed upon and only 1 item was disagreed on. Therefore, it supports that the

emerging educational technologies are effective in the learning process of Secondary School Students in Nsukka Education Zone.

Table 3: distributed to the teachers

s/n	Age(Category)	No	Male	Female
1	25 – 35	7	2	5
2	36- 45	13	9	4
3	46 – above	10	2	8
	Total	30		

In Table 3, out of the 30 copies of the questionnaire distributed to the teachers, all were completed, returned and found useable for the purpose of this analysis. The

age bracket of the respondents was, 25-35 (7) while 36-45 (13) and 46-above (10). A higher number of female 17 as against 13 males, constitute the study's respondents

Table 4: Opinion of Teachers regarding the effect of education technologies in Secondary School in Nsukka Educational Zone (N = 30).

s/n	Items	SA(%)	A(%)	UD(%)	D(%)	SD(%)	Remark
1	Pupils are able to access your chosen material with ease and at no cost.	50	17	0	13	20	Agreed
2	pupils have a positive opinion about the medium you adopted, and they know how to utilize it.	16	40	10	17	17	Agreed
3	Secondary school pupils have access to instructional television.	10	8	0	7	5	Agreed
4	Instructional television is one of the most efficient ways to boost enrolment rates.	4	3	1	9	13	Disagreed
5	Your teaching and learning process is aided by the computer.	2	3	0	13	12	Disagreed
6	Theoretical and practical learning activities delivered using computer.	5	6	2	6	11	Disagreed
7	Students have been able to get new learning experiences through the internet and the World Wide Web.	1	3	0	12	14	Disagreed
8	Educational technology is provided by institutions for the benefit of students.	2	4	0	12	12	Disagreed
9	Teachers have received specialized training in the use of educational technology.	5	2	0	8	15	Disagreed
10	Teachers have gone through refresher training on instructional technology.	2	3	0	10	15	Disagreed

Table 4: It is observed from the above analysis that out of the 10 items, 7 was disagreed upon and 3 were agreed upon. Therefore. It supports the statement that

the pupils faced problems in having access and use of emerging educational technologies in Secondary School in Nsukka Education Zone

Table 5: distributed to the pupils

s/n	Age(Category)	No	Male	Female
1	9 – 13	28	12	16
2	14- 16	39	18	21
3	17 – above	8	4	4
	Total	75		

In Table 5, out of the 75 copies of the questionnaire distributed to the pupils, all were completed, returned and found useable for the purpose of this analysis. The

age bracket of the respondents was, 9-13 (28) while 14-16 (39) and 17-above (8).A higher number of female 41 as against 34 males, constitute the study's respondents

Table No: 6 Opinion of Students regarding the effect of education technology in Secondary School in Nsukka Educational Zone (N = 75).

S/n	Items	Yes (%)	No(%)
1	Audio is a less expensive medium for you to use than other forms of media.	53	47
2	You're used to watching instructional television.	52	48
3	Pupils are given up-to-date information via educational technology.	64	36
4	For you, computer-mediated interaction is an entirely engaging medium.	33	67
5	Students' access to computer-mediated communication is enhanced by educational technology.	37	63
6	In the laboratory, computers are employed in science experiments.	26	74
7	It is challenging to supply rural places with machine communication tools.	39	61
8	It's challenging to set up research laboratories in remote places.	40	60
9	Pupils' intellectual levels have been shown to rise as a result of innovative technologies	46	54
10	Students struggled to gain access to and use developing technology.	40	60

Table 6: It is observed from the above analysis that there is no provision of educational technologies in Secondary School in Nsukka Education Zone

Discussion

Table 2 presents the opinion of administrators regarding the effects of educational technologies in secondary schools in Nsukka educational zone. Examining the results, it indicates that administrators in secondary schools in Nsukka educational zone will be of great benefit in the use of educational technologies both for the teachers and pupils. The result supported that of Ezeliora (2003) and Runge & Lee (2004) who insisted that educational technologies are essential for effective management of educational environment.

Table 4 presents the opinion of teachers regarding the effects of educational technologies in secondary schools in Nsukka educational zone. The result indicates that teachers in secondary schools in Nsukka educational zone still find it difficult with educational technologies. Improvement need to be on compulsory/free training for teachers, provision of modern/functional gadgets, periodic seminars/workshops, and provision of technical assistance. These when put in place will ease managing large classes, ease of lesson delivery, and computer usage. In effect, use of computer technology such as multi-media projectors, smart boards, microphones, animations and power points will reduces the difficulty in managing large classes and lesson delivery. This is in agreement with many research findings (Harry, 2016; Momma, 2017) that difficulties still exists in some

teachers which can be a genuine concern for them, and that these concerns deserve serious attention..

Table 6 presents the opinion of students regarding the effects of educational technologies in secondary schools in Nsukka educational zone. The result shows that with students using technologies in their classroom, it will provide provides a different picture. Students agreed that when technologies are thoughtfully integrated with a sound pedagogical vision, students' views of teaching and approaches to learning can be positively affected.

CONCLUSION

For quite some time, educational technology has become very important in education as well as in the professional growth of teachers. Moreover, the technologies have brought with them mental consequences derived from different factors, such as lack of training or pressure to use them.

Radio and television are not accessible as a medium of teaching in Secondary School in Nsukka Educational Zone, according to several educational technology emphasis. Teachers in Secondary School in Nsukka Education Zone were found to be ineffective in their use of instructional technology. It was also revealed that instructional technology for technical topics is unavailable in Secondary School in Nsukka Education Zone, neither do they have access to the internet.

The study concluded that in Secondary School in Nsukka Education Zone, that computer-mediated communication is not used for counseling and science topics, and teachers do not communicate their topic

suggestions to higher authorities, or have little access to refresher training. The study also concluded that there aren't enough spaces for instructional technologies to be used and educational exhibitions are not regularly held in Secondary School in Nsukka Education Zone.

Recommendations

The researcher proposes a few broad recommendations in light of the limits imposed by inadequate educational technology facilities.

The researcher is certain that if present insufficient resources are efficiently utilized and inefficient management is fixed, the strength for

innovation will emerge in Secondary School in Nsukka Education Zone.

In Secondary School in Nsukka Education Zone, flash cards, felt boards, static models, overhead projectors, sectional models, slides, opaque projectors, and models should be employed in the teaching learning process.

A adequate funding for instructional technologies should be set aside in Secondary School in Nsukka Education Zone.

The institution's head (administrators) should have the authority to acquire instructional technologies in Secondary School in Nsukka Education Zone).

Secondary school students should have their own television channel in Nsukka Education Zone.

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