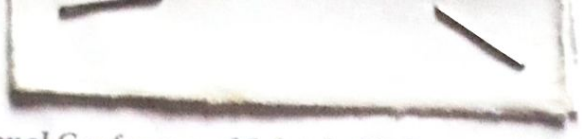

Teachers' Perception and Utilization of E-Resources for Instruction towards Physics Curriculum Implementation in Niger State

Ibrahim, A. K.[1]; Gana, C. S. (PhD)[2]; & Usman, I.N.A (PhD)[3]
Department of Science Education[1,2],
Department of General StudiesTechnology[3]
Federal University of Technology, Minna, Niger State, Nigeria
Corresponding Email: kawu4kk@gmail.com/ +234-706-869-9748

Abstract
This study focused on teachers' perception and utilization of e-resources for instruction towards physics curriculum implementation in Niger State. Descriptive survey research design was adopted. The population of the study was made of 92 Physics teachers teaching physics in public senior secondary schools in the State. A questionnaire titled "Physics Teachers Perception and Utilization of Instructional e-Resources for Implementation of Physics Curriculum Questionnaire (PTPUIeIPCQ)" made of four-point scale with a coefficient of reliability of 0.73 was administered on the population. Two research questions were raised to guide the study. Data collected was analised using mean and standard deviation, some of the findings revealed that: Teachers perceived that they cannot use e-resource as an E-teaching platforms to cover scheme of work; Teachers perceived that information on E-resource may be misleading; Teacher made use of e-curriculum to prepare lesson notes. Some of the recommendations made were: thatPhysics teachers should be motivated and encouraged to attend more training, workshop and seminars on the use of e-resources and e-content creation

Introduction

The twentieth century was shaped by sweeping changes in communication technologies. The application and use of information technology has affected every aspect of human endevour with education inclusive. The academic community has undergone tremendous changes during these years, assuming new dimensions influenced by technology-driven applications. Instructional resources have witnessed a great metamorphosis in recent years both in their collection development and in their service structures (Thanuskodi, 2012).

According to Madhusudhan (2010) Electronic resources deliver the collection of information as full text databases, e-journals, image collections, multimedia in the form of CDs, Tape, Internet, Web technology etc. E-resources may include e-journals, e-discussions, e-news, data archives, e-mail on line chatting, etc. can be called as an e-resources. Electronic information sources are a wide range of products going from electronic periodicals to CD-ROMs, from mailing list to databases, all of them having a common feature of being used and sometime modified by a computer.

Mobegi*et al*, 2010 stated that the importance of E-resources in the teaching and learning process is influenced by factors such as quality, availability, efficiency, conditions of resources, accessibility, participation, pupil ratio, perception and utilization of the e-resources. Similarly, Ene (2015) noted that educational resources if properly harnessed in the school system can ensure achievement of educational goals. Josiah and Gana (2019) have documented that performance of

Nigeria students in external physics examinations over the years have been dwindling. This, they mentioned may related to non-availability or poor utilization of resources by teachers in the implementation of physics curriculum. Abubakar (2020) explained that inadequate instructional resources and utilization of available instructional resources by few Physics teachers in the implementation of physics curriculum in secondary schools in Nigeria remain a major challenge that has negative impact on students' performance. Omebe and Akani (2015) reported that students achieved higher in physics when physics curriculum is implemented using instructional resources and the result also show no bias in gender. Therefore, this study intended to look at teachers perception and utilization of e-resource for instruction in the implementation of physics in Niger State.

Purpose of the Study

The main purpose of this study is to investigate teachers' perception and utilization of e-resources for instruction towards implementation of physics curriculum in Niger State. Specifically, this study sought to:

(i) Determine perception of physics teachers on e-Resources for instruction towards implementation of physics curriculum in Niger State.

(ii) Determine utilization of e-Resources for instruction towards implementation of physics curriculum in Niger State.

Research Questions

(i) What is the perception of Physics teachers on e-Resources for Instruction towards implementation of Physics curriculum in senior secondary schools?

(ii) What is the extent of utilization of available e-Resources for instruction towards effective implementation of Physics Curriculum in senior secondary schools of Niger State?

Methodology

The study employed descriptive method and using questionnaire to elicit responses from teachers on their perceptions and utilization of e-resources for instruction towards physics curriculum implementation in Niger State.

The population of physics teachers in senior secondary schools in Niger State are 92 and researcher used the entire population as it is not much. Therefore, purposive sampling technique was employed.

The instrument used for data collection was questionnaire designed for eliciting information from teachers on their perception and utilization of e-resources for instruction towards physics curriculum implementation which consists of ten questions for teacher perception and another ten questions for utilization of e-resources for instruction using modified four-point-scale with VHP= Very High Perception (4), HE= High Perception (3), LE= Low Perception (2), and VLE = Very Low Perception (1) and for Utilization: VHU= Very High Utilization (4), HU= High Utilization (3), LU= Low Utilization (2), and VLU = Very Low Utilization (1)

The questionnaire was face-validated by two experts from the department of Science Education department, Federal University of Technology, Minna, and all observations they made were noted and effected accordingly. The reliability of the instrument was tested using 20 Physics teachers

from private schools. The data collected were analysed using chronbachapha. And the reliability coefficient of 0.73 was obtained.

Results

The data collected from the teachers response was analysed using mean and standard deviation.

Research Question One

What is the perception of Physics teachers on e-Resources for Instruction towards implementation of Physics curriculum in senior secondary schools?

Table 1: Mean Responses of Physics teachers perception on e-Resources for Instruction towards implementation of Physics curriculum in senior secondary schools.

S/N	Items Description	Mean	Standard Deviation	Decision
1	The rate of learning is faster when teachers make use of e-resource instruction means	2.73	1.080	HP
2	E-resource for instruction can increase the productivity learning towards the implementation of physics curriculum.	2.57	1.161	HP
3	E-resource for instruction is a modern way of instructional delivery?	2.54	0.977	HP
4	The rate of curriculum implementation is faster when teachers make use of e-resource teaching means.	2.55	1.052	HP
5	E-resource for instruction can content an entire curriculum contents for easy implementation of physics curriculum.	2.70	1.503	HP
6	I can use e-resource as an E-teaching platforms to cover my scheme of work	2.45	1.113	LP
7	I like the idea of using E-resource platforms for instruction	2.54	1.063	HP
8	I regularly use E-resource because I find information on E-resource to be useful	2.54	1.181	HP
9	I get useful information through E-resource and use it for instructional delivery	2.55	1.123	HP
10	Information on E-resource are never misleading	2.49	1.074	LP
	Average Mean Score	**2.57**	**1.133**	**HP**

Results of table 1 shows Mean responses of Physics teachers perception on e-Resources for Instruction towards implementation of Physics curriculum in senior secondary schools with items 1-5 and 7- 9 have the mean rating ranging from 2.54- 2.73 respectively. This mean ratings are greater than the benchmark of 2.50 which indicate that Physics teachers perceived the use of e-Resources for Instruction towards implementation of Physics curriculum in senior secondary schools to high extent while items 6 and 10 have mean rating of 2.45 and 2.49 which are below the benchmark of 2.50 which indicate that Physics teachers perceived these two items is to a low extent.

Research Question Two

What is the extent of utilization of available e-Resources for instruction towards effective implementation of Physics Curriculum in senior secondary schools of Niger State?

Table 2: Mean Responses of teachers utilization of available e-Resources for instruction towards effective implementation of Physics Curriculum in senior secondary schools.

S/N	Items Description	Mean	Standard Deviation	Decision
1	I usually demonstrate my teaching with appropriate e-resource.	2.57	1.122	HU
2	I use e-resource to illustrate key issues during my teaching	2.51	1.143	HU
3	Graphs and charts on e-resource are used to make my teaching real in Physics	2.57	1.142	HU
4	Newspaper and magazines are used to help students learn currents affairs and events in my classroom.	2.58	1.131	HU
5	I usually use current physics e- curriculum to prepare my note of lesson.	2.66	1.189	HU
6	The use of e-resources can reduce use of the chalkboards when teaching since it contains more information.	2.64	1.182	HU
7	The e-resources helps a teacher gives note to copy after his teaching on the chalkboard	2.59	1.159	HU
8	The use of e-resources helps reduces stress on the part of the teacher	2.60	1.090	HU
9	The use of E-resource for instruction can bridge the gap between the traditional and modern way of instructions towards implementation of Physics curriculum.	2.70	1.126	HU
10	Using E-resource in academic studies would increase the achievement of students when curriculum content is covered.	2.58	1.141	HU
	Average Mean Score	**2.60**	**1.143**	**HU**

Results of table 2 shows Mean responses on the utilization of available e-Resources for instruction towards effective implementation of Physics Curriculum in senior secondary schools with items ranging from 1-10 have the mean rating ranging from 2.51-2.70 respectively. The mean ratings are greater than the benchmark of 2.50 which indicate that Physics teachers utilize the e-Resources for Instruction towards implementation of Physics curriculum in senior secondary schools to a high extent.

Discussion

The items that account for the physics teachers perception of e-resources for instruction towards the implementation of physics curriculum in secondary schools in Niger State showed, that the teachers agreed with almost all the items which indicated they have high perception for e-

resources instruction for the implementation of physics curriculum. The items that measured the extent of utilization of e-resources for implementation of physics curriculum in Niger State showed, that physics teachers are utilizing e-resources for instruction in their implementation of physics curriculum. This goes against the findings of Abubakar (2020) who found that very few physics teacher are utilizing instructional resources for teaching students.

Findings

The study was designed to find out physics teachers perception and utilization of e-resources for instruction towards the implementation of physics curriculum in Niger State. After the analysis of the collected data, the following findings were summarized.

(i) Teachers have high perception towards e-resources for instruction towards the implementation of physics curriculum in Niger State.

(ii) Teachers have high utilization of e-resources for instruction towards the implementation of physics curriculum in Niger State.

Conclusion

The result from this study revealed that; teachers e-resources as e-teaching platform, they perceived that information on e-resources may be misleading, learning is faster when teachers make use of e-resources, teachers make use of graph and charts on e-resources to make teaching real in physics class, teachers make use of e-curriculum to prepare lesson notes, and use of e-resources reduces stress on the part of the teacher.

Recommendation

From the findings of this research, the following recommendations are made:

(i) Physics teachers should be motivated and encouraged to attend more training, workshop and seminars on the use of e-resources and e-content creation

(ii) Physics teachers should try teaching of physics using e-teaching platforms

(iii) School administrators should encourage use of e-resources by teachers through supplying e-resources for both learning and instructions in their schools

References

Abubakar, B.M. (2020). Impact of instructional materials on Students' Academic Performance in Physics, in Sokoto-Nigeria. *IOP Conference Series: Earth and Environmental Science.476 012071*

Ene, F. N. (2015). "Effect of cloze instructional approach on senior secondary school students' achievement in English reading.*Journal of Education in Development Areas.* 10(1). 234-237.

Josiah, M.M. and Ghana, C.H. (2019). Physics Resource Availability and Utilization in Nigeria Secondary Schools. *International Journal of Entrepreneurial Development, Education and Science Research. Vol 5, 1:p-ISSN: 2360-901x/e-ISSN:2360-9028*

Madhusudhan, M. (2010). Use of electronic resources by research scholars of KurukshetraUniversity.*The electronic library, 28(4):492-506.*

Mobegi, F., Ondigi, B., and Oburu, P. (2010). Secondary school head teachers' quality assurance strategies and challenges in Gucha district, Kenya. *Educational Research and Reviews, 5(7):408- 414.*

Omebe, C.A. and Akani, O. (2015). Effect of Instructional Resources on Student's Achievement in Physics and Chemistry in Secondary Schools in Ebonyi State, Nigeria. *European Journal of Trraining and Development Studies. Vol.2, No2, pp.56-65.*

Thanuskodi, S.(2012). Use of Online Public Access Catalogue at Annamalai University Library. *International Journal of Information Science, 2(6): 70-74.*