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Academic Staff Perception on Effective Planning of Information and Communication Technology (ICT) in Distance Learning Programme *(pp. 275-283)*

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Abstract

This study investigated the academic staff perception on effective planning of Information and Communication Technology (ICT) in distance learning programme. A research question and null hypothesis guided the conduct of the study. The survey design was adopted and a researcher - developed questionnaire containing 18 items was used to collect data from 259 academic staff in the tertiary institutions in Anambra State. Mean and t-test were used in answering the research question and null hypothesis. Prominent among the major findings of the study were the use of electronic mail (e-mail), electronic notice board, internet, video conferencing, facsimile machine (fax), disc player, satellite telecommunication, slide audio cassette etc in distance learning programme. It was recommended that: Government/institutions should provide among other things, a website or be connected to internet and procure up to date computers with genuine spare parts and competent computer operators. Again, government should liaise with media houses, information and communication technology providers and other relevant bodies in enhancing distance learning.

Introduction

One of the greatest concerns of Nigerians has been the issue of standards and quality of the education system. This explains the highlighting of the uniform educational standards in the National Policy on Education (2004) and the various measures by the Federal Government to assure quality n our educational system. The development of ICT is an indication of the commitment of the Federal government to assure quality. Information and Communication Technology (ICT) therefore refers to the use of electronic equipment (especially computers) to process, store and disseminate information to and over a wide audience (Sanmi and Osungbemiro, 2002). Oshordi (1999) observed that awareness towards the use of communication technology is increasingly in the classroom in the third world such that mere verbalization or over verbalization of word alone in the classroom to communicate ideas, skills and attitude to educate learners is futile. Therefore, there is need to use communication technology for the purpose of enhancing effective teaching. There are different types of information and communication media, some of which are as follows: computers hard and soft wares, public address system, slides, overhead and opaque projectors, video and video cassettes, audio tapes and cassette recorders, etc. The information needs of universities are rapidly changing. Presently, the success of any of these institutions may depend more on its ability to manage information rather than on its ability to control administrative departments. The rapid breakthrough in new information and communication technologies will therefore change the way knowledge is developed, acquired and delivered. New technologies offer opportunities to innovate on course content and teaching methods and to widen access to higher learning (Minitzberg, 2004). Hawawini (2004) also opined that information technology does not reduce the need for lecturers but changes their role in relation to learning process and that the continuous dialogue that convert information into knowledge and understanding become fundamental.

Distance education on the other hand according to Onuka (2004) is a system based on selective use of instructional media both traditional and innovative that promote the self-teaching-learning process to achieve specific educational objective with potentially greater geographic coverage than traditional face to face system of education. For Egunyomi (2001), it is the organization and delivery of instructions to learners who do not have in site: physical, close and immediate interactions with their teachers. It consists of the mixture of learning through print, correspondence, electronic media

instruction. It was stated in National Policy on Education (2004) as the mode of teaching in which learners are removed in time and space from the teacher and it uses variety of media and technologies to provide and/or improve access to good quality education for large numbers of learners wherever they may be.

Umuoru-Onuka (2002) also opined that distance education is a programme designed to give educational opportunities to the less privileged, education-wise. Print and electronic media are usually the means of instruction in distance learning. This type of programme Willis (1993) maintained that it provides adults with a second chance of a university education and to update the knowledge base of workers at their places of employment.

Every organization has some production resources which must be given a detailed consideration. In the educational sector, plans are usually made in relation to the production functions. Thus, Osagie (2001) viewed planning as an activity which focuses on the future requirements for the achievement of the goals of the organization. Saint (1995) was of the opinion that as universities becomes determined to bolster their capacities for strategic planning and management; they are confronted with decision making constraints posed by lack of appropriately organized and accessible information on key aspects of university performance. Commenting on the relevance of data in the education system, Nwagwu (1995) pointed out that records and record keeping constitute the arteries that supply life-sustaining blood through the system and sub-systems of institutions.

The explosion of information and communication technology has brought learners together by erasing the boundaries of time and space for both site-based and distance learners. Specialized courses using a variety of media are delivered to students in various locations in order to serve the educational needs of the growing population. Anigbogu and Umeh (2003) observed that distance education has experienced dramatic growth since the early 1980's, having evolved from early correspondence education using primarily, print based materials into a worldwide movement using various technologies and through them, distance education promote student-teacher interaction and provide necessary feedback to the learner at a distance. But there are some deficiencies like poor planning, inexperienced computer and other media operators, inadequate technologies etc. Therefore, the need for adequate planning of ICT in distance education programme becomes imperative.

Purpose of the Study

The purpose of the study was to find out the academic staff perception on effective planning of ICT in distance learning programme. Specifically, this study sought to:

1. Identify measures for effective planning of ICT in distance learning programme.
2. Ascertain the influence of gender on the measures for effective planning of ICT in distance learning programme.

Research Question

What are the measures for effective planning of ICT in distance learning programme?

Research Hypothesis

A null hypothesis below was formulated to guide the study at 0.05 level of significance.

- *There is no significant difference between the mean rating of male and female academic staff of the tertiary institutions on the measures for effective planning of ICT in distance learning programme.*

Methodology

This study adopted a descriptive survey design to collect information from a sample of a population on the measures for effective planning of ICT in distance learning programme. The study was conducted in Anambra State. The population comprised the academic staff of the five federal and state tertiary institutions in the state. A sample of 136 males and 123 female academic staff of the five federal and staff tertiary institutions in the state were selected through proportionate stratified random sampling technique.

A researcher developed questionnaire was used for the study. The items on the questionnaire were structured on a four-point scale of Strongly Agree (SA), Agree (A), Disagree, (D) and Strongly Disagree (SD). Copies of the questionnaire for the academic staff were distributed to them in their various institutions through five research assistants. The entire 259 questionnaire were timely completed and used for the study.

To ascertain the face validity of the questionnaire, the researcher present the initial draft of the instrument to two lecturers in administration and

supervision and one in measurement and evaluation in the department of Educational Foundation, Nnamdi Azikiwe University Awka. They made some corrections which the researcher effected in the final draft of the questionnaire. The Cronbach Alpha formular was used to ascertain the homogeneity of the questionnaire items. The instrument was administered on 10 female and 15 male academic staff from tertiary institutions in Delta State. A Cronbach Alpha Coefficient value of 0.92 was obtained and considered adequate for the study.

Method of Data Analysis

The research question was answered using mean while t-test was used for hypothesis. Only items with mean ratings of 2.50 and above were accepted as measures for effective planning of ICT in distance learning programme.

Presentation of Results and Analysis

Research Question:

What are the measures for effective planning of ICT in distance learning programme?

The entire items in table 1 were rated above 2.50 in all the columns and the grand mean stood at 31.0. This indicated that the academic staff of the higher institutions in Anambra State agreed that all the listed items are measures for effective planning of ICT in distance learning programme.

Null Hypothesis:

There is no significance difference between the mean rating of male and female academic staff of the tertiary institutions in Anambra State on the measures for effective planning of ICT in distance learning programme.

The result in table 2 revealed that there is no significant difference between the mean ratings of male and female academic staff of the five tertiary institutions in Anambra State on the measures for effective planning of ICT in distance learning programme. The calculated t-value is less than the table t-value, the null hypothesis is therefore accepted.

Discussion of the Results

The result of the research question as presented in table 1 indicated that the respondents agreed that all the eighteen items are measures for effective planning of ICT in distance leanring programme. This is supportive of the views of Anigbogu and Umeh (2003) who maintained that variety of

technologies have to be used as delivery systems to facilitate learning at a distance. Some of these technologies include print material, computer conferencing, e-mail, satellite communications, multimedia computer technology, interactive video etc. Hankin (1998) and Williams (1997) also held the opinion that facets of information and communication technology which will be usable in the distance learning programme are internet, voice-mail, bulletin boards electronic notice board, facsimile machine (fax), disc players and television.

On the influence of gender, the hypothesis was tested using t-test, the calculated t-value is less than the critical value. The researchers therefore had to accept the null hypothesis and conclude that gender has no significant influence on the opinion of the academic staff on the measures for effective planning of ICT in distance learning programme. The study then concludes that effective planning of ICT in distance learning programme is not gender dependent.

Recommendation

Having realized the crucial role of information and communication in distance learning programme, the following recommendations are made for improvement:

1. All tertiary schools should have a website or be connected to the internet where they can showcase their research discoveries or publications.
2. All tertiary schools' staff should be adviced or encouraged to learn the use of the super high-way, that is, the internet or website.
3. Distance learners should be encouraged to develop attitude of browsing and making use of print material and other media devices so as to be abreast with recent development and measure-up with their counter-parts elsewhere in the world.
4. There should be procurement of up to date computers with genuine spare parts.
5. Competent computer and media operators need to employed.
6. Government should liaise with media houses, information and communication technology providers and other relevant bodies in enhancing distance learning.

Conclusion

A revolution information and communication technology is one that will essentially shelter the effectiveness of traditional and authoritative method of management and will undoubtedly lead to profound changes in distance learning programme. The educational planners and administrators need to cope with the threat of massive data management and effective use of computer. Against this background, information and communication technology should be encouraged, improved upon and be allowed to spread to all tertiary institutions.

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Table 1: Mean (x) rating on measures for effective planning of ICT in distance learning programme

Item No.	Items	$\bar{X}$	Decision
1.	All staff should be computer literate	3.45	Accepted
2.	All distance learners should be computer literate.	3.00	Accepted
3.	Staff and students should have knowledge and access of the following:	3.10	Accepted
4.	Electronic mail (e-mail)	2.80	Accepted
5.	Bulletin Board Electronic notice board	2.71	Accepted
6.	Internet (To access all the information on computers on your own computers)	3.00	Accepted
7.	Video conferencing	3.20	Accepted
8.	Teleconferencing	3.40	Accepted
9.	Data conferencing	3.00	Accepted
10.	Voice mail (extension of e-mail application). Facsimile machine (Fax)	3.00	Accepted
11.	Tape recorder, disc player and television.	3.53	Accepted
12.	Computer based learning programmes	3.60	Accepted
13.	Research using C.-D Rom or the web	2.71	Accepted
14.	Word processed lecture notes	3.72	Accepted
15.	Electronic publication of lecture notes	3.70	Accepted
16.	Accessing electronic journal	2.84	Accepted
17	Satellite telecommunications	2.53	Accepted
18	Slide audio (cassette)	3.10	Accepted
	Grand Mean		3.10

Table 2: T-test table on (x) ratings of male and female academic staff on measures for effective planning of ICT in distance learning programme

Source of Influence	Subject	No	Mean (x)	Sd	df	Cal t-value	Crit-t value	Level of significance	Result
Measures of effective planning of ICT in distance learning programme	Male academic staff	136	2.80	2.99	2.57	0.3039	1.96	.05	Do not reject Ho
	Female academic staff	123	2.70	2.39					