Media in Distance Learning: The Nigerian National Teachers Institute Distance Education Programme

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ABSTRACT

This study investigated the use of media by distance learners enrolled in the NTI distance education programme. Two hundred and fifty five distance learners drawn from Oyo State, Nigeria, completed a questionnaire to determine the use of media, and factors militating against their effective use by distance learners. Research data were analyzed using percentages. The findings indicated that face-to-face contact and print related media were the major media used for learning. The findings also indicated that lack of fund, ICT facilities, electricity, among others; militate against the use of technology media. Recommendations were made for the provision of basic infrastructures to facilitate the integration of technology in distance education, in Nigeria.

Keywords: National Teachers Institute, distance education, teacher education programme, media.

INTRODUCTION

Distance learning is the outcome of distance education which is a form of education and training delivery in which students are remote from the distance education institution. The instructors and the students are not in the same location. Learners are separated from instructional base or teachers either in time or space for a significant portion of their learning (Barron, 1999a, Tooth, 2000). It may include contact no contact and part time education (Federal Republic of Nigeria, FRN 2004). Distance learning offers unique opportunities for: life-long learning to working adults; out of school programme for children and youth who are unable to attend ordinary school, as a result of disability, illness or remote location; educational opportunities for nomadic and itinerant groups and pre-service teachers' preparation and in-service development, among others (UNESCO, 2002, Yusuf, 1999). There are several benefits of distance education. It is convenient for both students and instructors, flexible and thus provide students option to participate in education on an individual basis, and it is as effective as traditional instruction when appropriate methods and technologies are used. In addition, it is a cheaper form of education, the use of multi-sensory media provides for optimal combination of media and interaction, it offers increased opportunities for increased interaction with students, and ensures equity in educational opportunity (Barron, 1999a).

Distance education has certain major characteristics (Barron, 1999a, Butcher, 2003, Keegan, 1996, Schlosser & Simonson 2002). These characteristics are: institutional accreditation,

where learning is certified or accredited by an institution or agency; use of variety of media for communication (audio, visual, computer based learning, etc) for the provision of two-way synchronous or asynchronous communication, which permit tutor-learners interaction; separation of learner from a learning group; and possibility of face-to-face meeting for tutorial which may include learner-learner interaction, library study, and laboratory practice session. As can be deduced from these characteristics media are sine qua non for effective interaction between the learners and the distance education institutions or instructors.

Several classifications have been developed to describe media used in distance education (Butcher, 2003, Barron, 1999b, McIsaac & Gunawardena, 1996, Schlosser, and, Tooth, 2000). They can be categorized into those which are used to convey subject instructional content to learners, and those which permit communication between teachers and students (Tooth, 2000). First, is face-to-face, which is a long established cornerstone of education. It allows for immediate interaction between teachers and learners, and learner and learner. It enables individual interaction (Butcher, 2003). Text medium refers to scripted and other related signs like numbers and now exists in various forms. Print which is a form of text is the foundation of all education and dominates in distance education. In distance education print serves as the primary source of instruction or may be supplemental. It can be in form of textbooks, posters, letter, circular workbook, and so on. Texts are also available using modern information and communication technologies (ICT). Texts include short message service (through GSM) hypertext, electronic mail, chats and so on. Audio media using various means include radio, audio cassette, telephone, voice mail, and audio conferences. Video distributed media include video tape, satellite delivery, and microwave; broadcast video, desktop video, and so on, and also integrated multi-media through ICT.

It should be underscored that although print was the major medium in the evolution of distance education. Globally, technological advance, however, have provided avenue for enriching the quality and quantity of instructional content offered through distance education. It has also provided avenue for facilitating interaction between the teachers and group of students or among students. In fact, ICT has provided essentially different options for distance education.

By the nature of distance education, the interpersonal communication in traditional education is replaced with some form or electronic or mechanical media. That is, communication takes place by the use of one or a number of media (Keegan, 1996). Each medium no matter its relevance to distance education has its own strengthens/ advantages and weaknesses/disadvantages.

Therefore, media must be used to improve the quality and quantity of the learning process in distance learners. When the learners' needs are really focused in distance education it is appropriate to compensate for medium weaknesses by using other media. In additional, each medium characteristic must match the skills or knowledge being addressed (McIsaac & Gunawardena, 1996, Piedling, 1999, Tooth, 2000).

Teachers are indispensable to any education system; in fact no education system can rise above the quality of its teacher (FRN, 2004). Distance education offers veritable vehicle for improving the quality of pre-service training given to trainee teachers (Perraton & Potashnik, 1997, Perraton, Robinson & Creed, 2002; Yates, 2000) and it also has the potential of ensuring life-long learning for practicing teachers.

Distance education has been used to address problem of teachers' supply as manifested in shortage of teachers, minority female teachers in primary schools, too many untrained and under trained teachers (UNESCO, 2002). Thus, it has been used to provide pre-service

teacher preparation, upgrading of academic qualification and in-service continuing professional development in particular subject content area and instructional methods. Furthermore, teacher education can be accessible to people in remote areas who can adapt curriculum to local needs (UNESCO, 2002).

It can also improve the quality of teacher education, and catalyze reforms in teacher education programme. It has great role to play in teacher education when harmonized with conventional teacher education (Perraton & Potashnik, 1997). The availability of ICTs has further widened the horizon of distance education in teacher preparation, as it provides educators with unique opportunities to enhance distance education. ICT offers teachers opportunities for professional development, on-line mentoring for novice teachers, upgrading the knowledge and skills of teacher educators in the area of new technology tools so as to infuse and model good use of technology (Phillion, Johnson & Lehman, 2003; UNESCO, 2002).

BACKGROUND

The Nigerian National Teachers Institute (NTI) is a distance education institution for training teachers. The institute which is located in Kaduna, Northern Nigeria, was established based on Acts No. 7 of April, 1978. The four fold objectives of the institute as enunciated by Balogun (1988) were:

> ➤ to identify and clarify professional requirement of teachers and teaching.
> ➤ to design and mount Programmes which achieve the objectives of teacher education
> ➤ to operate and maintain a nation wide programme which must work harmoniously with exiting and similar programmes.
> ➤ to incorporate strategy for change and innovations within its conceptual and operational framework (pp. 74 – 75).

To achieve these objectives the institute was charged with providing courses of instruction leading to the development, upgrading, and certification of teachers using the distance learning, open learning, and class model of distance education.

That is, use of face-to-face contact through over 600 study centers spread across the country, along with media, particularly print and other media to allow individual students learn at his/her pace. S

Students meet at study centers on weekend and holidays, and also use instructional materials delivered by NTI.

The NTI Programmes have evolved over the years. The institute's first programme Teachers' Grade II certificate programme commenced in 1984 and it was meant to upgrade under qualified teachers to Teacher Certificate II to teach in primary schools. The duration of the programme varied with students' entry qualification (Makinde, 1988). The Institute's Nigerian Certificate in Education (NCE) started in 1990. It was meant to upgrade Teachers' Grade II certificate holders to NCE, to teach in primary and junior secondary schools.

Also, the Pivotal Teacher Training Programme (PTTP) by distance learning was introduced by the institute to produce teachers needed for Universal Basic Education (UBE) increased in year 2000 (NTI, 2000).

Efforts have reached advanced stage to commence degree programme using distance learning approach for degree Programmes.

In spite of the long history of distance education in Nigeria, systematic studies have not been conducted widely on distance education or distance learning. Recent literature concerning use of media in distance education in Nigeria, most especially NTI distance education programme, to the best of the researchers' knowledge is sparse.

Most of the literature about distance education in Nigeria deals with theoretical studies. For instance, Gidado (1994) examined the past, present, and future of distance education in Nigeria. In a similar vein, Yusuf (1999) proposed a conceptual framework on the establishment of an Open University in Nigeria.

Oguntonade (1979) empirical study addressed the socio-physical condition of study among distance learners enrolled in the University of Lagos Correspondence and open studies unit (COSIT) degree programme. Of recent, Osunde and Omoruyi (2004) evaluated the NTI's manpower training programme for teaching personnel in Mid-Western Nigeria.

Thus, no specific studies have investigated the use of media by distance learners enrolled in various programmes of the Nigeria National Teacher Institute.

Therefore, this study investigates the use of media by NTI distance programme learners and the constraints militating against their effective use of media.

RESEARCH QUESTIONS

Two major research questions were employed to guide the research.

- What types of instructional media do distance learners enrolled in NTI programmes use?
- What are the factors militating against effective use of media in NTI distance education programmes?

Research Type
The study is a descriptive one using survey method. It employed the use of questionnaire administered on the respondents to gather the required data.

Sample
A total of 255 Teacher Grade II Certificate and NCE distance learners, drawn from the 60 NTI study centres in Oyo State, Nigeria, formed the research sample. This sample was composed of 105 (41.18% males, and 150 (58.82%) females. In addition, they could be classified into 173 (67.84%) NCE and 82 (32.67%) Teacher Grade II distance learners. The mean age of the respondents was 29.15.

Instrument
A researchers' designed instrument titled "Media Availability and Use Questionnaire" was used for the study. The instrument was divided into three major sections. Section A dealt with bio-data of respondents with three items on study centre, learners' gender, and programme. Section B of the instrument dealt with the degree of the use of media in distance learning. The section has 19 items, with Likert scale ranked as very frequently, sometimes, and not at all. Section C which has ten major items related to the factors militating against effective use of media had response modes of Yes or No.

The instrument was given to educational technology and distance education experts to ensure the face, content, and construct validity of the items. Based on their suggestions the final draft of the instrument was developed. Test-retest result of the instrument is as follows, Section B on the degree of usage score yielded a value of r= 0.78 p<0.00, while Section C on factors militating against effective use of media yielded a value of r=0.75, p<0.00.

Data Analysis Procedures
In this study, the researchers used quantitative research methods, that is, percentages to address the research questions.
Results

The results derived from the analyzed data based on the research questions are as presented in Tables 1 and 2. Firstly, Table 1 presents the number and percentages of the degree of the utilization of specific media by distance learners.

Research Question 1
What types of instructional media do distance learners enrolled in NTI programmes use?
The analysis related to this research question is as presented in Table: 1

Table: 1
Degree of Utilization of Media by NTI
Distance Learners

S/N	Items	Very frequently		Frequently		Sometimes		Not at all	
		No.	%	No.	%	No.	%	No.	%
1	Print media (Books)	214	83.92	32	12.55	6	2.35	3	1.18
2	Radio programme	1	0.39	4	1.57	2	0.78	248	97.25
3	Television programme	0	0	2	0.78	1	0.39	252	98.82
4	Audio tape	2	0.78	4	1.57	9	3.53	240	94.12
5	Instructional e-mail	3	1.18	0	0	0	0	252	98.82
6	Instructional computer programme	7	2.75	03	1.18	2	0.78	243	95.29
7	Facsimile (fax)	2	0.78	01	0.39	01	0.39	251	98.43
8	Satellite broadcast	01	0.39	3	1.18	4	1.57	247	96.86
9	Mobile phone	0	0	0	0	3	1.18	252	98.82
10	Internet facilities	3	1.18	4	1.57	02	0.78	246	96.47
11	Audio CD	2	0.78	02	0.78	01	0.39	250	98.04
12	Video CD	1	0.39	3	1.18	04	1.57	247	96.86
13	Photographic materials	60	23.53	18	7.06	140	54.90	37	14.51
14	Posters	106	41.57	87	34.12	43	16.85	19	7.45
15	Graphic materials	130	50.98	21	8.24	67	26.27	37	14.51
16	Models	6	2.35	140	54.90	40	15.69	69	27.06
17	Realia	12	4.71	17	6.67	144	56.47	82	32.15
18	Video conferencing	0	0	0	0	0	0	255	100
19	Audio conferencing	0	0	0	0	0	0	255	100

The results in Table 1 indicate that the print media (textbooks, graphic materials, posters, and photographs were very frequently or frequently used by distance learners. For instance, 98.47% of the distance learners very frequently or frequently used textbooks (very frequently 83.92 and frequently 12.55).

Also graphic materials used accounted for 50.98% and 8.24%, for very frequently and frequently, respectively, on the other hand none of the distance learners used video conferencing, audio conferencing, and television programme very frequently, while only 0.78% use the television frequently other technology media were sometimes, or not used at all (Radio, internet facilities, audio, and video CD, audio tape, etc).

Table: 2
Factors Militating against Effective use of
Media in Distance Education

S/N	Items	Yes		No	
		No	%	No.	%
1	Unavailability of holder modern technology media	255	100	0	0
2	Lack of access to available media	232	90.98	23	9.02
3	Absence of electricity supply in rural areas	209	81.96	46	18.04
4	Epileptic power supply in urban areas	230	90.19	25	9.80
5	Poor maintenance of electronic media	221	86.67	34	13.33
6	Lack of experts to operate equipment	232	90.98	23	9.01
7	Lack of emphasis on need for media by tutors	179	70.20	76	29.80
8	Lack or personal interest in the use of media	225	88.24	30	11.76

Research Question 2
What are the factors militating against effective use of media in NTI distance
Education programmes? The results of the analysis related to the question were addressed and they are as presented in Table: 2.

It can be deduced from the results in Table: 2 that factors militating against effective use of media include unavailability of required technology media (100%); lack of access to available media (90.98%); lack of electricity in rural areas (81.96%); epileptic/erratic power supply where it is available (90.19%); poor maintenance of existing television media (86.67%); lack of experts to maintain available equipment (90.98%); lack of emphasis on use of media by course tutors at study centres (70.20%), and learners' lack of interest in the use of media (88.24%).

It can be inferred from the results relevant to the research questions that only conventional media such as textbooks, posters, graphic materials, and so on, are used by distance learners. Contemporary technology like computer applications, satellite, broadcast, and audio conferencing, among others, were not used by NTI distance learners. In addition, factors like unavailability of media lack of access, lack of interest among distance learners, and so on, militate against the use of media.
Discussion

The overall findings from this investigation suggests that distance learners enrolled in the NTI distance education programme, in Nigeria, irrespective of gender and programme use conventional media, particular print media in their learning. This is in confirmation of the position of distance education educators that the print media predominate globally in the delivery of distance education materials and in communication between distance education institution/tutors and distance learners (Barron, 1999b, Butcher, 2003; McIsaac & Gunawardena, 1996; Riedling, 1999, Schlosser, nd; Tooth, 2000).

Modern media which are relevant for husbanding the potentials of distance education are not being used by distance learners. The non-use of these media may not be unconnected with the prevalence of face-to-face contact which is available through the study centres. Thus, distance education learners are subjected to similar learning conditions as obtained in conventional school systems in Nigeria, where "talk and chalk" is the prevalent means of communication.

For the problems militating against effective use of media, the results revealed lack of infrastructural facilities and equipment which can facilitate the use of contemporary technology by distance learners. It is generally recognized by researchers that media availability and access are important for successful use of technology in education or learning. This is because they are indicative of the learning environment (Lemke & Coughlin, 1998). In addition, the learners do not have the requisite knowledge and interest in the use of technology, which are essential for success in the use of technology (Lemke & Coughlin, 1998).

CONCLUSIONS

This study examined the use of media, and factors militating against effective use of media in the Nigerian National Teachers' Institute (NTI) distance education programme in Oyo State, Nigeria.

The findings show that distance learners use mainly print media in their learning. In thinking about how to promote greater level of use of modern technology it is important to improve access to ICT in both urban and rural areas of Nigeria, improve learners' computer expertise and those who are using those technologies should be encouraged to share their experience with non users. Study centres should be linked to the internet and distance learners should be given training on the use of those technologies. NTI should develop more instructional packages apart from the print packages.

Infrastructural facilities like electricity, libraries with ICT facilities, and telecommunication should be provided in towns and other rural areas to facilitate the use of modern technology products by distance learners located in those areas. In addition, NTI should collaborate with established institutions close to their study centres so that distance learners enrolled in their programmes can have access to the facilities and equipment in such institutions. This will further enrich distance learners' learning.

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