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**POTENTIALS OF AUDIO-VISUAL MATERIALS IN
NIGERIAN UNIVERSITY LIBRARIES**

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Abstract

The uses made of audio-visual materials and equipment are investigated, with a view to determining the services rendered in university libraries. Audio-Visual materials are found to be under-utilized. Causes of under-utilization are given. Investigation reveals that there are no significant differences in the use of audio-visual materials for information dissemination between Federal and State University libraries. Recommendations on how to improve usage of audio-visual materials are given.

Introduction

University libraries provide information in any appropriate format to users. It could be in print or non-print materials. Non-print materials include audio or visual forms. Audio-visuals are employed as modern communications technology to help solve the educational problems arising from the population boom, the explosion of human knowledge and the complexity of the information to be taught and learned. The need for individualized instruction and the shortage of qualified teachers in certain critical areas are some of their advantages, (Haban, 1996). They help students to form clear and useful mental concepts, overcome barriers of time and space and they create a strong feeling of reality of learning experience, (Crompton, 1979). They are particularly useful for instructional and illustrative purposes.

Audio-visual materials include microforms, which are generally accompanied by readers/printers. Other audio-visual materials include tapes, discs, or records and their recorders, television, videos and video recordings.

Visual aids consist mostly of films, filmstrips slides, motion pictures, transparencies, globes, charts and photographs. Within the audio-visual section could be found projectors, public address system (PAS), radio and television receivers and lamination machines. The equipment is sometimes referred to as the hardware while others are the software.

Statement of the Problem:

Audio-visual section/unit is non-existent in some university libraries. Where it exists, the unit is always developed last and its materials are not accorded high priority as sources of vital information. Hence there is need to investigate its potentials in university libraries.

Purpose of the Study:

The study was intended to find out:

1. The uses made of audio-visual materials in information dissemination in University libraries.
2. The level of utility made of the audio-visual materials.
3. The level of financial contributions audio-visual materials make to library's income

Significance of the Study

The study spotlighted the relevance of audio-visual unit within university library service. Results of the study should awaken in university librarians the need for public awareness of the importance of audio-visual unit.

Scope of the Study

The study was limited to audio-visual librarians in both state and federal university libraries in Nigeria. The study identified factors that made audio-visual materials under-utilized. Findings from the study determined the level of financial contributions audio-visual materials make to library's income, and their potential in information generation.

Research Questions

1. How often do audio-visual librarians make use of audio-visual materials for information dissemination?
2. How often do audio-visual librarians hire out audio-visual materials to users?
3. How often do audio-visual librarians charge fees for services in their audio-visual units?

Hypotheses:

The following null hypotheses which were tested at 0.05 level of significance guided the study.

- Ho₁ There is no significant difference in the mean rating of scores between federal and state university audio-visual librarians on the use of audio-visual materials for information dissemination.
- Ho₂ There is no significant difference in the mean rating of scores between federal and state university audio-visual librarians on the hiring out of audio-visual materials to users.
- Ho₃ There is no significant difference in the mean rating of scores between federal and state university audio-visual librarians on charging of fees for audio-visual services to users.

Literature Review

As a result of difficulties in giving a succession of mass library orientation lectures, some academic libraries had experimented with the making of films to serve as an introduction. "Closed-circuit television is one of the methods of giving library instruction", (Ifidon, 1997, p. 35). It was also observed that:

Medical students benefit immensely from diagnostic or case study films, photographs and anatomical charts. Cassette tapes, videos and videotapes have been found very useful in learning of accents in foreign languages and modeling behaviour in theatrical arts (Jacobson & Albright, 1983, p.271).

Lawani (1978), reported that authoritative lectures on various subjects in science and technology, current awareness services, seminars, symposia and interviews with famous scientists were made available in the form of audio cassettes or cartridges.

Microforms enjoy only limited acceptance in academic libraries, (Whitmore, 1983). Teague (1979) stated that they were not being used to their potential and negative and apathetic attitudes had been expressed by most users because they restricted the user. Microforms must be read with the help of a machine, and the user needed to learn how to use the machines and therefore modified his working methods. "Microform text is also seen as a poor substitute for a book. This is one of the user resistance reactions", (Teague, 1979, p.8). Bell (1978) found that microcopies were neither so widely available nor so widely used as eye-legible photocopies and that those who had at some time used microforms constituted a substantial minority of his respondents. He stated that only 29 of 183 (16%) would use microcopies willingly.

However, microforms offer great advantages. Librarians have purchased them in lieu of hard copy in order to stretch the acquisition budget, to save precious shelf space, to replace materials that are subject to mutilation and loss, and to acquire out-of-print materials. Its compactness if exploited could enhance interlibrary loan. They could be used to update stock, enhance reference services, preserve documents and improve information retrieval and dissemination. Back issues of serials and some rare books could be acquired in microforms,

(Akussah, 1994). There is also the automated microform like the COM (Computer Output Microfilm). Otten (1971), reported that microform unlike paper documents could be economically retrieved and handled by machines without human interaction. He maintained that they are cost-effective, (Otten, 1971).

Research Design

A descriptive survey design was used since the study was concerned with a description of an existing situation by use of a questionnaire in eliciting information from respondents.

Area of Study

The area of study is 36 university libraries in the 36 universities in Nigeria.

Population

The population for the study consisted of all the 27 audio-visual librarians in the 36 (24 Federal and 12 State) university libraries, at the time of study 1999/2000.

Sample and Sampling Procedure

The sample comprised of 14 audio-visual librarians in 18 university libraries. Proportional stratified random sampling technique was employed to draw up 50 percent of each of the two strata (Federal and State university libraries). Eighteen university libraries were drawn up using table of random numbers.

Instrumentation

The instrument for collection of data consisted of a 35-item questionnaire titled Potentials of Audio-visual Materials. It had two sections, A and B. Section A contained two items, one item on name of the library of the respondent and the other, on the respondent's designation. Section B dealt with the research questions. It contained 33 items in three clusters. Each cluster addressed a particular research question. The questionnaire was developed on a four-point Likert rating scale as follows:

Always	(A)	=	4 points
Often	(O)	=	3 points
Seldom	(S)	=	2 points
Never	(N)	=	1 points

The research instrument was validated through face validation, tested and its reliability was determined, using Cronbach alpha. Values of 0.63, 0.85, 0.90 were obtained for clusters A to C respectively in Section C for the federal audio-visual librarians, while values of 0.62, 0.95 and 0.51 were obtained for cluster A to C respectively in Section C for state audio-visual librarians.

Data Collection Procedure

The instrument was administered to respondents in the 18 university libraries. Out of 26 copies of the questionnaire dispatched to respondents on July 1999, only 16 were received as at February 2000. The response rate was 61%. Out

of the 16, 14 were library professionals while two were audio-visual technicians (Appendix B).

Method of Data Analysis

Frequencies and percentages were used to analyse responses to items in Section A.

Items on the questionnaire with a mean score of 2.5 and above on the four-point Likert rating scale were accepted. The t-test statistic was used to establish whether there were any significant differences in the mean ratings between the State and Federal audio-visual librarians regarding the hypotheses.

Results

Data for answering the research questions and the hypotheses are presented.

Research Question One

How often do audio-visual librarians make use of audio-visual materials for information dissemination?

Among the 14 library professionals, there were four state and 10 Federal audio-visual librarians.

Table 1: Item and Cluster Mean Scores and Standard Deviations on Use of Audio-Visual Materials for Information Dissemination

		N = 4		N = 10	
	Cluster A Use of audio-visual materials.	State Librarians		Federal Librarians	
	ITEMS	Item Mean	Item SD	Item Mean	Item SD
1.	Microfilm	2.00	1.00	1.50	0.5
2.	Microprint	1.25	0.43	1.50	0.5
3.	Microfiche	1.00	0.00	1.90	0.84
4.	Disc recordings	1.75	0.83	1.10	0.30
5.	Tapes	2.00	1.00	1.50	0.5
6.	Videotapes	1.25	0.43	2.40	0.66
7.	Cassettes	1.50	0.5	2.40	0.66
8.	Cartridges	2.75	0.83	1.70	0.64
9.	Films	1.75	0.83	1.70	0.64
10.	Filmstrips	2.75	1.09	1.70	0.64
11.	Slides	2.50	0.50	1.10	0.30

12.	Transparencies	2.25	0.43	2.00	0.77
13.	CD-ROM	-	-	4.00	0.00
14.	Radios	-	-	1.20	0.40
15.	Maps	2.00	1.00	2.00	0.77
	Cluster Mean	1.90		1.85	
	Cluster SD	0.93		0.89	

The table shows that cartridges and filmstrips have the greatest mean of 2.75 among the state audio-visual librarians while CD-ROM has the greatest mean of 4.00 among federal university audio-visual librarians. The cluster mean for the state libraries was 1.90, while that of the federal university libraries was 1.85.

Hypothesis One:

This was tested using t-test statistic (Table 2).

Table 2: t-test Analysis of the Mean Ratings of the Use of Audio-Visual Materials for Information Dissemination between Federal and State University Audio-Visual Librarians

Variable	N	Mean	SD	Degrees of Freedom	Calculated t-value	Critical t-value	Probability Level	Result
Cluster A Federal University Audio-visual Librarians	10	1.85	0.89	12	0.092	2.179	P<.05	Not significant
State University Audio-visual Librarians	4	1.90	0.93					HO ₁ accepted

With 12 degrees of freedom, a calculated t-value more than 2.179 is needed to reject the null hypothesis. The null hypothesis is therefore accepted.

Research Question Two:

How often do audio-visual librarians hire out audio-visual materials to users?

The data related to this research question are presented in Table 3.

Table 3: Item and Cluster Mean Scores and Standard Deviations on How often Audio-Visual Librarians Hire out Audio-Visual Materials to Users

N = 4

N = 10

	Cluster B How often AV materials are hired out	State Librarians		Federal Librarians	
	ITEMS	Item Mean	Item SD	Item Mean	Item SD
16.	Overhead Projector	1.25	0.43	2.60	0.66
17.	Opaque Projector	1.75	0.83	1.70	0.64
18.	Filmstrip Projector	1.75	0.83	1.40	0.49
19.	Micro-reader/printer	1.25	0.43	1.70	0.64
20.	2" x 2" Slide Projector	1.75	0.83	1.70	0.64
21.	Disc Recordings	1.75	0.83	1.70	0.64
22.	Tapes	1.25	0.43	1.70	0.64
23.	Videotapes	1.25	0.43	1.90	0.84
24.	Cassettes	1.25	0.43	1.90	0.84
25.	Cartridges	1.00	0.00	1.40	0.49
26.	Films	1.75	0.83	1.40	0.49
27.	Public address system	2.50	0.50	1.40	0.49
28.	Cassette Recorders	2.25	0.43	2.00	0.77
29.	Maps	3.00	0.71	1.60	0.66
	Cluster Mean	1.71	..	1.72	
	Cluster SD	0.79		0.72	

The table shows that public address system and maps have acceptable means of 2.50 and 3.00 respectively among state audio-visual librarians. Among the federal audio-visual librarians, only overhead projector has an acceptable mean of 2.60.

Hypothesis Two:

A t-test statistic was used. Calculating with 12 degrees of freedom, using cluster mean (M) and cluster standard deviation (SD) for federal (N = 10) and state librarians (N = 4) respectively in Table 3, a calculated t-value of 0.02 which is less than the critical t-value of 2.179 at a probability level of $P < .05$ was obtained. The null hypothesis is therefore accepted.

Research Question Three

How often do audio-visual librarians charge fees for services in their audio-visual units?

The data related to this research question are presented in Tables 4.

Table 4: Item and Cluster Mean Scores and Standard Deviations on
How often Fees are charged by Audio-Visual Librarians

		N = 4		N = 10	
	Cluster C How often A/V materials are hired out	State Librarians		Federal Librarians	
	ITEMS	Item Mean	Item SD ..	Item Mean	Item SD
30.	Dubbing of Cassette Tapes	2.00	1.00	2.00	0.77
31.	Video Coverage	2.50	0.50	2.50	0.50
32.	Lamination	3.00	0.71	3.00	0.45
33.	CD-ROM	3.25	0.43	3.10	0.54
	Cluster Mean	2.69		2.65	
	Cluster SD	0.84		0.73	

The table shows that only item 30, Dubbing of cassette tapes has no acceptable mean both for state and federal librarians.

Hypothesis Three:

The hypothesis was tested using a t-test statistic. Calculating with 12 degrees of freedom, using cluster mean (M) and cluster standard deviation (SD) for federal (N = 10) and state librarians (N = 4) respectively in Table 4, a calculated t-value of 0.08 which is less than the critical t-value of 2.179 at a probability level of $P < .05$ was obtained. The null hypothesis is therefore accepted.

Discussion Of Results

It was observed that library officers were among heads of audio-visual departments in university libraries. There were only two audio-visual technicians in the libraries surveyed. These are eloquent testimonies of the low priority accorded to audio-visual departments.

Research Question One:

The data in Table 1 showed that only items 8, 10, 11 and 13, had an acceptable mean which was 2.5 and above. CD-ROM had an item mean of 4.0. The rest

had item means below 2.5. The data showed gross underutilization of audio-visual materials.

Research Question Two

The data in Table 3 showed that a few of the items had an acceptable mean of 2.5 and above. Overhead projector has an item mean of 2.6, Public Address System, 2.5 and maps, 3.0. Other items' means were below 2.5. It is an indication that users are not keen in hiring audio-visual materials.

Research Question Three

The data in Table 4 showed that items 31 to 33 which included video coverage, lamination and CD-ROM had acceptable item means of 2.5, 3.0, 3.10 and 3.25 respectively. Once again CD-ROM had the highest item mean.

Hypotheses

The three null hypotheses were accepted.

Reasons for Under-utilization of A/V Materials in University Libraries

- i. Publicity Problem:
Audio-visual materials are not widely publicized as veritable sources of information.
- ii. Lack of maintenance Culture and scant deployment of audio-visual technicians.
- iii. Lack of Space for display and use of audio-visual materials and equipment for instance "the library has started a small unit of audio-visual collection" (Bayero University, 1986, p. 15).
- iv. Disproportionate allocation of funds in favour of books and journals to the neglect of audio-visual materials and their hardware.
- v. Users' resistance reactions.
- vi. Lack of infrastructure, space parts and irregular electricity supply.

Conclusions:

There is gross underutilization of audio-visual materials and equipment for information dissemination services in Nigerian university libraries (Tables 1 and 3).

Considering acceptable item mean score of 2.5 and above utility, CD-ROM is the greatest item that audio-visual librarians make use of in information dissemination (Table 1) as well as charge fees for its services (Table 4). Lamination and video coverage have also attained acceptable item mean score utility under chargeable services (Table 4). Given the fact of gross under-utilisation and users' apathy in hiring audio-visual materials, they (audio-visual materials) do not contribute effectively to libraries' financial resources.

The three null hypotheses were accepted. These indicate no significant differences in the mean rating of scores between federal and state university audio-visual librarians on:

- i. the use of audio-visual materials for information dissemination (Table 1).

- ii. hiring out of audio-visual materials to users (Table 3)
- iii. charging of fees to users for A/V services (Table 4).

Recommendations:

Public awareness of the potentials of audio-visual materials through flyers, posters library orientation and use of the library programmes is necessary. Audio-visual unit/section should be established in Nigerian university libraries where such unit does not exist. Equitable percentage of the library vote should be allocated to the purchase and maintenance of audio-visual machines and materials.

There should be an audio-visual technician in each audio-visual unit in university libraries. The professional librarian in-charge should update his/her expertise through staff/personal development. Library/Information science departments should give adequate attention to audio-visual practicum.

Provision of enough accommodation and constant electricity supply can improve usage of audio-visual materials.

More audio-visual services could be commercialized to augment libraries' lean finances. Hiring out of public address system (PAS), films, filmstrips and projectors could be undertaken for a fee.

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