

# Availability and Utilisation of Print and Non-Print Instructional Materials in Technical and Vocational Schools in Niger State, Nigeria.

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## *Abstract*

*The study surveyed the availability and utilization of print and non-print instructional materials in technical and vocational schools in Niger State. To elicit the responses for the study, five research questions were asked. The population of the study was made up of 166 technical teachers randomly selected from five technical and five vocational schools in Niger State. Information was collected for the study through the administration of questionnaire on the respondents. A test – retest method was used to determine the reliability of the instrument, the result was appropriately scored. The data obtained were analysed using mean, standard deviation and percentages. The findings showed that there was inadequate provision of instructional materials in technical and vocational schools in Niger State and that the teachers lacked adequate training and competence in, using these materials. The implications of the findings were discussed and recommendations were made for the improvement of technical and vocational education.*

## **Introduction**

It has been observed that most teachers in post primary schools and colleges in Niger State do not use instructional materials in teaching their students. Chado (1997) stated that, instructional materials and equipment are teachers' tools. It also refers to as various kinds of teaching equipment, instruments,

teaching aids, etc used for the proper education of the child at school. The use of learning and instructional materials (LISM) that is print and non-print material is important in teaching and learning generally. The apathy towards the use of instructional materials in teaching is common among teachers who attended teacher-training colleges through to

university. One wonders why most of the teachers do not practice in their schools and colleges what they learnt in the teacher training institutions.

Accordingly, Obianwu and Azubike (1994) observed that in most Nigerian schools, the popular method of communication employed by many teachers is the talk and chalk approach. This method has persisted for a very long time and its effectiveness can no longer satisfy the needs of modern day teaching and learning which stress the provision of a wide range of learning experiences. Agun (1988), succinctly describe the situation by saying that the classroom is often cold and dull because teaching at the classroom level in Nigeria is rarely supported with educational media.

Obi (1993) reported that, most of the vocational and technical schools are faced with numerous constraints, which prevent them from accomplishing the expected task of providing well-trained skilled personnel. Some of these constraints are, scarcity of human and non-human resources, that is shortage and sometime complete absence of technical teachers and instructional materials (Oranu, 1989 and Uthman, 1996). Akolo (1976) found non-availability of teaching aids as one of the factors, which contribute to poor teaching by teachers and the resultant failures. Harcelread (1959) also expressed concern over the non use of

audiovisual materials by the teachers. He attributed the slow acceptance of audiovisual materials by most teachers to the fact that "the average school is still poorly equipped with them".

Apart from the fact that new and modernized educational gadgets which are expensive to maintain are introduced into the system, the realities of our social setting, such as constant power failure, lack of enough qualified technical manpower, ill-equipped workshops and absence of training tools are some of the problems militating against the provision and use of these instructional materials.

### Statement of the Problem

This study sought to find out the extent to which instructional materials are available for the teaching of vocational and technical education subject/courses in post primary schools and colleges in Niger State.

To identify factors that inhibits the use of learning and instructional materials (LIMS) in the classroom; to ascertain whether teachers' subject areas of specialization affect their willingness to use learning and instructional materials.

To find out if gender influences teachers' willingness to use learning and instructional materials; and

To determine how competent teachers are in the use of instructional materials.

### **Significance of the Study**

This study will contribute towards the development and improvement of technical teachers and technology education in Niger State in particular and Nigeria in general. It is also hoped that the outcome of this research will help education planners to emphasise the need of availability and use of equipment in instruction. They will also see the need to invest more in providing instructional materials to schools/colleges.

### **Research Questions**

The following research questions guided the study.

1. Are instructional materials available for the effective teaching of vocational and technical courses in Niger State?
2. What are the factors inhibiting the use of learning and instructional materials (LISM) in the classroom?
3. Does a teacher's subject area of specialization affect his willingness to use LIMS?
4. How competent are the teaching staff in the use of instructional materials in vocational and technical schools in Niger State?

### **Methodology**

This study employed the descriptive survey research design to

examine the availability and utilization of print and non-print instructional materials in technical and vocational schools in Niger State. It is reasoned that the survey approach is more appropriate for this study because it has the potential to elicit maximum information about the study from respondents.

This study was carried out to cover five technical and five vocational schools in Niger State. The respondents for the study were all the 166 technical teachers teaching technical subjects in technical and vocational schools in Niger State.

### **Research Instrument**

This instrument for this study was the researcher-designed questionnaire, which consisted of five sections and contained 40 items.

### **Reliability of the Instrument**

A test-retest reliability method was employed to determine the consistency of the items. After administering the items twice within two weeks, the Pearson Product Moment Correlation Co-efficient formula was used. The co-efficient of  $r = 0.99$  which was obtained was considered adequate for the study.

### **Method of Data Collection**

The administration of the questionnaire was conducted by the

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materials should with the assistance of teachers in their schools.

**Method of Data Analysis**

In order to arrive at a good decision, means, standard deviation and percentages were used to analyse the data collected.

**Research Question 1**

Are instructional materials available for the effective teaching of vocational and technical courses in Agri. State, Nigeria?

**Table 1**

**Teacher Responses on the Availability of Instructional Materials.**

Sl. No.	Material	Yes	No	Total	%	X	SD	Remarks
1	Books	10	10	20	50%	2.5	0.8	Moderately Available
2	Tables	10	10	20	50%	2.5	0.8	Not available
3	Chairs	10	10	20	50%	2.1	0.8	"
4	Tables	10	10	20	50%	1.8	0.6	"
5	Blackboard	10	10	20	50%	1.4	0.7	"
6	Powerpoint	10	10	20	50%	2.0	0.8	"
7	Overhead projector	10	10	20	50%	1.6	0.8	"
8	Computer projector	10	10	20	50%	1.2	0.6	"
9	Television set	10	10	20	50%	1.5	0.7	"
10	Model	10	10	20	50%	1.8	0.8	"
11	Computer system	10	10	20	50%	1.3	0.7	"
12	Radio (portable)	10	10	20	50%	1.6	0.8	"

*Table 1 Contd.*

S/N	Statement	AA 4	MA 3	SA 2	NA 1	$\bar{X}$	SD	Remarks
13.	Motion pictures (16mm)	6 (3.2)	10 (5.4)	8 (4.3)	162 (87.1)	1.2	0.7	„
14.	Slides	5 (2.7)	14 (7.5)	10 (5.4)	157 (84.4)	1.3	0.7	„
15.	Filmstrips	1 (0.5)	11 (5.9)	6 (5.9)	168 (90.3)	1.2	0.6	„
16.	Videotape recordings	2 (1.1)	12 (6.5)	5 (2.7)	167 (89.8)	1.2	0.6	„
17.	Audio recorder	6 (3.2)	12 (6.5)	7 (3.8)	161 (86.5)	1.3	0.7	„
18.	Videotape Recorder	4 (2.2)	5 (2.7)	10 (5.4)	167 (89.8)	1.2	0.6	„
19.	Transparencies	5 (2.7)	14 (7.5)	60 (32.2)	107 (57.5)	1.6	0.8	„
20.	Projection screen	4 (2.2)	15 (8.1)	65 (34.9)	102 (54.8)	1.6	0.8	„
21.	Motion picture projector	0 (0.0)	9 (4.8)	20 (10.8)	157 (84.4)	1.2	0.6	„

Result from Table 1 indicate that the very low mean scores for items 4,5,7,8,9,11,12,12,14,15,16,17,18,19,20 and 21 which range from 1.2 to 1.8 with the high percentages of 74.4, 88.9, 83.3, 93.0, 94.1, 88.2, 89.3, 0, 91.4, 93.5, 92.5, 90.3, 95.2, 89.7, 89.7, and 95.2 for items respectively, shows that the instructional materials are not available in their schools. Also the low mean scores of 2.3, 2.1 and 2.0 for items 2, 3 and 6 and the combined percentages of 54.3, 64.3, and 74.7 for the items respectively shows that the instructional materials are not available.

The mean score of 2.5 for item 1, and the percentage of 54.8 or 59.1 for the AA and MA shows that item 1 is only moderately available.

**Research Question 2**

What factors inhibit the use of learning and instructional materials in the classroom?

**Table 2**  
**Teachers' Response on Factors that affect Instructional Material Utilisation in Classroom**

S/N	Statement	SA 4	A 3	D 2	SD 1	$\bar{X}$	SD
22.	The use of instructional media in classroom is time consuming	65 (34.9)	59 (31.7)	40 (21.5)	22 (11.8)	2.9	1.0
23.	Irregular power supply affects the use of instructional media in the classroom.	74 (39.8)	88 (47.3)	21 (11.3)	3 (1.6)	3.3	0.7
24.	Inadequate knowledge about operation of learning and instructional materials (LIMS) affects their usage in the classroom.	82 (44.1)	76 (40.9)	22 (11.8)	6 (3.2)	3.3	0.8
25.	The teacher-student relationship is lost when instructional media is use	51 (27.4)	54 (29.0)	49 (26.3)	32 (17.2)	2.7	1.1
26.	Inability of the teachers to operate /handle learning and instructional materials affects their use in the classroom.	67 (36.0)	82 (44.1)	29 (15.1)	9 (4.8)	3.1	0.8
27.	Instructional media tend to interfere procedures.	40 (21.5)	81 (43.5)	49 (26.3)	16 (8.6)	2.8	0.9

Results from Table 2 indicate that the high mean scores of 2.9, 3.3, 3.3, and 3.1 for items 22, 23, 24 and 26 and the corresponding high percentages of 66.6, 87.1, 85.0 and 80.1 show that most of the respondents agreed with the items' statement.

The mean scores of 2.7 and 2.8 for items 25 and 27 and the corresponding percentages of 56.4 and 65.0 show that more than half of the respondents agreed with the statements of items.

**Research Question 3**

Does teacher's subject area of specialization affects his/her willingness to use learning and instructional materials?

**Table 3**  
**Teachers' Responses on the Effect of Teacher Subject Area of Specialization on His/ Her Willingness to Use Learning and Instructional Materials**

S/N	Statement	SA 4	A 3	D 2	SD 1	Mean x	SD
28.	It is difficult to find learning and instructional materials (LIMS) in some subject areas (dearth LIMS)	42 (22.6)	115 (61.8)	18 (9.7)	11 (5.9)	3.0	0.7
29.	Teachers do not have time to prepare their own instructional materials in some subject areas.	31 (16.7)	135 (72.6)	16 (8.6)	4 (2.2)	3.0	0.6
30.	Inadequate experience in the subject area affects teachers' willingness to use learning and instructional materials (LIMS)	44 (23.7)	120 (64.5)	17 (9.1)	5 (2.7)	3.1	0.7
31.	High cost of instructional materials in certain subject areas affects the teachers' willingness to use (LIMS)	74 (39.8)	92 (49.5)	15 (8.1)	5 (2.7)	3.3	0.7
32.	Lack of expertise/competence to demonstrate with instructional materials in specific subject areas affect the teachers' willingness to use (LIMS).	65 (34.9)	94 (50.5)	22 (11.8)	5 (2.72)	3.2	0.7

Results from Table 3 show that the high mean scores for items 28, 29, 30, 31 and 32 ranging from 3.0 – 3.3 and corresponding percentages of 84.4, 89.3, 88.2, 80.3 and 85.3 for SA and A for the items respectively indicate that most of the respondents strongly agreed with the statements in the items.

**Research Question 4**

Does gender influence a teacher's willingness to use learning and instructional materials?

**Table 4**  
**Teachers' Responses on the Gender Influence in the Use of Learning and Instructional Materials**

S/N	Statement	SA 4	A 3	D 2	SD 1	Mean x	SD
33.	Female technical teachers are more reluctant/unwilling to use instructional materials in their teaching than their male counterparts.	24 (12.9)	68 (36.6)	75 (40.3)	19 (10.2)	2.5	0.8
34.	male technical teachers are more skillful than their female counterparts.	36 (19.4)	62 (33.9)	69 (37.1)	19 (10.2)	2.6	0.9
35.	Fear of failure in the use of instructional materials more common among female teachers.	25 (13.4)	78 (41.8)	57 (30.6)	26 (14.0)	2.5	0.9
36.	Female teachers fear to use instructional materials with electrical application.	42 (22.6)	95 (51.1)	37 (14.4)	12 (6.5)	2.9	0.8

Results from Table 4 indicate that the means scores of 2.5, 2.6 and 2.5 for items 33, 34 and 35 with the corresponding percentages of 49.5, 53.3 and 55.2 for SA and A for the items respectively, show that half of the respondents agreed with the item statements, while half disagreed. The mean score of 2.9 and the corresponding percentages of 73.7 for SAS and A for item 36 show that more than half of the teachers agreed with the item statement.



**Research Question 5**

How competent are teachers in the use of instructional materials in vocational and technical schools in Niger State, Nigeria?

**Table 5**  
**Teachers' Responses on Teacher Competency in the Use of Instructional Materials**

S/N	Statement	SA 4	A 3	D 2	SD 1	Mean $\bar{x}$	SD
37.	Teachers lack adequate training in the use of instructional materials	31 (16.7)	115 (61.8)	29 (15.9)	11 (5.9)	2.9	0.7
38.	Most teachers are skilled in the use of instructional materials	28 (16.7)	102 (61.8)	35 (18.8)	21 (11.8)	2.7	0.8
39.	Inability of teachers to operate the gadgets (operational problems) hinders the use of learning and instructional materials (LIMS)	49 (26.3)	85 (45.7)	32 (17.2)	20 (10.8)	2.9	0.9
40.	Some teachers lack the ability to select suitable instructional materials	47 (25.3)	72 (38.7)	50 (26.9)	17 (9.1)	2.8	1.0

Results from Table 5 show that the mean scores of 2.9, 2.7 and 2.8 for items 37, 38, 39 and 40 respectively and the corresponding percentages of 78.5, 69.6, 72.0 and 64.0 for SA and A for the items respectively indicate that more than half of the respondents agreed with the item statements.

**Discussion of Results**

The data collected for the present study were based on the responses of the subjects to the times in the research questionnaire. In question one, the result revealed that about 50% of the schools under study had textbooks. However, instructional materials such as diagrams,

charts, posters, photographs, journals, magazines and periodicals were not available in approximately 75% of the schools under study. The present study agrees with the findings of Akolo (1976) and Nguru (1987) who found that non-availability of teachings aids contribute to poor teaching.

In question two, the result indicate that majority of the teachers are of the opinion that the use of instructional materials in classroom is time consuming and most of them were not exposed to the use of instructional media. The result agrees with the studies of Nduka (1972), Olaitan (1978) and Aina (1991) whose researches show that there is lack of good training facilities and where they exist at all the training facilities are grossly inadequate. The result of question three revealed that more than 80% of the teachers indicated that it was difficult to find learning and instructional materials in their subject areas. This finding is in agreement with those of Balogun (1988), Aina (1991) and McCauley (1991) whose studies revealed that there was low utilization of instructional materials because of lack of appropriate instructional materials in some subject areas.

Result of question four revealed that about half of the respondents only agreed with the statement that female technical teachers are more reluctant or unwilling to use instructional materials than their male counterparts. While the result of question five revealed that the teachers lacked adequate training in the use of instructional materials and most of them were unskilled. The present studies agree with those Iwoh (1978) and Ike (1980), which revealed that teachers do not have the skills.

### *Major Finding of the Study*

*A number of findings were made from the study and they include the followings:*

1. *Some of the technical and vocational schools under study have textbooks, however it was discovered that most of them lack instructional materials such as diagrams, charts, posters, photographs, transparencies, overhead projector etc.*
2. *Majority of the teachers consider the use of instructional materials as time consuming and also lack of knowledge of using these materials.*
3. *Some of the teachers lack the expertise/competency to demonstrate with instructional materials and it is also difficult to find learning and instructional materials in some subject areas.*
4. *It was also discovered that some of the female teachers are more reluctant/unwilling to use instructional materials in their teaching due to fear of failure.*
5. *Some of the teachers lack adequate training and are unskilled in the use of instructional materials. And also there inability to operate some of the equipment.*

### **Implication of the Major Finding**

In this study effort has been made to ascertain the availability and utilization of print and non-print instructional materials in technical and vocational schools in Niger State. The result of the research revealed that majority of the schools has no instructional materials. Technical and vocational education, according to Mays (1984) affords the opportunity and time to acquire the appropriate practical and theoretical knowledge and the social skills needed to obtain employment in the industry. If technical teachers were without practical knowledge and experience, they would succeed in producing only theoretically half-baked technical college products.

Okorie and Ezeji (1988) has also observed that Nigerian institutions turnout graduates who have neither usable skills nor employable capabilities. Ehizogie (1993) also revealed that technical education is not meeting the needs of the various industries for skilled personnel. Finding solutions to the identified impediments above make the realization of the goal of technical education possible.

### **Conclusion**

From the findings of the study the following conclusions were made:

Almost all the schools covered have no instructional materials except textbooks. The research also revealed that majority

of the respondents was not exposed to the use of instructional materials and lack the necessary training and competence to use the instructional media. Irregular power supply, high cost of instructional materials, etc also hindered the utilization of these materials.

### **Recommendation**

From the findings recommendation are made:

1. Government should endeavour to provide enough instructional materials to schools.
2. Teachers should be taught how to design, develop and produce instructional materials during their training and retraining.
3. Adequate funds should be made available for teachers to enable them buy the necessary media from local production schemes.
4. In this age of technological advancement, computers, as an instructional medium, should be provided in all schools for the use of both teachers and students.
5. Teachers should be motivated and given all the necessary encouragement that will enable them put in their best (e.g. vehicle and

housing loans, free educational training).

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