



Availability and utilization of instructional materials in a North-west School of Nursing, Nigeria

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ABSTRACT

Instructional materials promote efficiency of education by improving the quality of teaching and learning, yet one of the major problems teachers and students encounter in our educational system in Nigeria includes inadequate teaching and learning materials. Hence, this study explores the availability and utilization of instructional materials. The study adopts a descriptive survey design. Instrument for data collection was a check-list and two set of questionnaires for the students and tutors. The sample for the study was arrived at using Yamane's formula where a total of thirty-one (31) tutors and one hundred and nineteen (119) students responded to the questionnaires. Data collected was analyzed using SPSS version 24.0 where a four scale Likert chart was interpreted using a mean standard of three (3) as reference point for accepting or rejecting each average mean. Findings among others show that apart from white boards for makers and anatomical models of various human organs that are adequately available, only few (35.5%) instructional materials are available and majority (67.2%) of the tutors do not utilize instructional materials in the course of teaching. The study concluded that tutors should be encouraged and monitored on the utilization of instructional materials and It was recommended that adequate instructional materials should be provided by the management of the institution in the course of teaching-learning Nursing.

Keywords: Availability, Utilization, Instructional materials.

INTRODUCTION

The use of instructional materials provides the physical media through which the intents and contents of the Nursing Curriculum are experienced. Instructional materials are collections of materials and equipment that processes instruction and training; such materials and equipment may be derived from the objectives of teaching and learning. They assist in putting across information and enable both teaching and learning to be effectively done (Mohammed, 2016). Eyitayo (2010) stated that the importance of instructional materials in enhancing effective teaching and learning in Nursing cannot be undermined due to the positive impact it has on the level of assimilation of the students. The quality of Nursing educational experience continues to increase in importance as technology advances, posing more challenges to the teachers who are responsible for impacting knowledge into the student Nurses; these impact in teaching-learning process can only be made when students' sense organs are fully involved in the teaching-learning process by giving the students freedom to explore subject areas based on their personal interest and understanding under the guidance of the teacher thereby helping the students to achieve superior academic results and equally grow both socially and personally, however, these can only be achievable through the use of instructional materials in the teaching-learning process (Renate & Andreas, 2016).



Instructional materials encompass all the materials and physical means an instructor might use to implement instruction and facilitate students' achievements of instructional objective. this may include traditional materials such as chalk boards, handouts, charts, slides, overheads, real objects, and videotape or film, as well newer materials and methods such as computers, digital video disks (DVDs), compact disk-read only memory(CD-ROMs), the internet and interactive video conferencing etc. (Johnson, 2011). Instructional media refer to those alternative channels of communication, which a classroom teacher can use to concretize a concept during teaching and learning process (Bello, 2002). Traditionally, classroom teachers have relied heavily on the 'talk-chalk' method during their teaching. Instructional materials help to provide variations in the ways in which messages are sent across, in using instructional materials, teachers and students do not only extend the range of sense organs we use but also extend the range of materials used for conveying the same message through the same organs. For instance, in teaching a topic a teacher can manipulate real objects or use their stimulators. Instructional materials therefore constitute the medium of exchange through which a message transaction is facilitated between a source and a receiver (Patrick, 2014).

Therefore, this study on availability of instructional materials and its utilization is important because according to Naz and Akbar (2010) instructional materials supply a concrete basis for conceptualize thinking thereby reducing meaningless work responses for student Nurses as it makes learning more permanent and interesting to the student. Instructional materials have a high degree of interest for the learner; for they offer a reality of experience which stimulates self-activity on the part of student. Instructional materials develop a continuity of thought in the student, this is especially true of motion pictures and videos as they provide experiences not easily obtained through other materials and contribute to the students' efficiency. Therefore, the use of instructional materials in teaching-learning process in Nursing exposes the student Nurse to primary experiences and this enriches learning. Recent studies on instructional materials focused on factors affecting the usage of instructional materials and the results are inconsistent (Teerapong 1991; Patchamon 2003; Saroch 2004; Sudarut 2005; Orawan 2007; Atcharaporn 2008 as cited in Akom (2013). In addition, most research has been conducted at different level of education such as the primary, secondary and vocational schools. In contrast, there is less research relating to availability and utilization of instructional materials in Nursing education. Therefore, this study assesses the availability and Utilization of Instructional Materials in Zamfara state school of Nursing and Midwifery, Gusau.

MATERIALS AND METHODS

Research Design

The research design selected for this study is descriptive survey design.

Location/Settings for the study

Zamfara state school of Nursing and Midwifery is located in Gusau North-west Nigeria, Gusau is a city and Local Government area located in northwestern Nigeria. Gusau has an area of 3,364km² and a population of 383,162 as at the 2006 census. Zamfara



state school of Nursing and Midwifery was established in 2005 by the then Governor His Excellency, Alhaji Ahamed Sani Yerima Bakura, and the school kick off formally in 2007. Apart from the School of Nursing and Midwifery, the institution offered the follow programmer: Community Midwifery, Remedial program, Foundation year program and recently Post Basic Nursing.

Study Population

The target population comprises of thirty-four (34) Educators/Tutors and one hundred and seventy-one (171) student Nurses.

Sample size and sampling technique

Using Yamane's formula, the sample for this study was one hundred and nineteen (119) for the Nursing students and thirty-two (32) for the Educators/Tutors.

Proportionate stratified sampling technique was used to select one hundred and nineteen (119) student Nurses from the one hundred and seventy-one (171) Nursing students, dividing them into three (3) strata according to their levels.

Year one (1): $58 \text{-----} 58/171 \times 100/1 = 34\% \text{-----} 34/100 = 0.34 \times 119 = 40$

Year two (2): $86 \text{-----} 86/171 \times 100/1 = 50\% \text{-----} 50/100 = 0.50 \times 119 = 60$

Year three (3): $27 \text{-----} 27/171 \times 100/1 = 16\% \text{-----} 16/100 = 0.16 \times 119 = 19$

$40 + 60 + 19 = 119$

Therefore, 40 students are randomly drawn from year one, while 60 students are randomly drawn from year two and 19 students are randomly drawn from year three proportionately. The rationale was to obtain data that reflected the opinion of all the student Nurses. Purposive sampling technique was used to select thirty-two (32) Educators/Tutors for the study.

Instrumentation and Data collection

The instrument used for this study was a check-list and two sets of questionnaire questionnaires (for Students and Educators/Tutors respectively). Face and content validation was used to validate the instrument for data collection. Test and retest method was used to determine the reliability of the instrument. The checklist containing most of the expected instructional materials needed for effective teaching and learning process in Nursing education, was used to assess the types of instructional materials available in the school. To maintain gender-balance in the student's opinion equal number of both male and female respondents were purposefully selected from each stratum, tutors who respond to the questionnaire was based on those present at the time of data collection. Both the questionnaire and check-list was personally administered by the researched at different intervals.

Data Analysis

Data was analyzed using descriptive statistical tools such as frequencies, percentages and mean (with constant mean of 3.0) via the aid of statistical package for social sciences, version 24.0.



Ethical Issues

Ethical approval was obtained from the school's educational and research committee and informed consent was sought from each participants before administering the questionnaires, rights of every participants was respected without negative effects.

RESULTS

Out of fifteen (15) instructional materials outlined in the check list; only boards (white boards for marker with 90%) and models (anatomical models with 78%) are adequately available (See Table 1 for check list). From the demographic data, most of the teachers are males (20) with 64.5%, Most of the teachers are BNSc holders which account for 25 (80.6%) and 5 (19.4%) with PGDE. All the teachers are specialist ranging from Nursing (15) with 48.4% to Nurse Educators (11) with 35.5% and finally -Midwife Educators (5) with 16.1%. (see Table 2). Table 3 shows that only items number 2, 5, 6, 7, 8 meets the mean average of 3 which is the standard for agreement (see table 3). Student's demographic shows that 50% of both male and female responds from year 1 and 2, while in year 3; 52.6% males and 47.6% females respond to the questionnaire (see table 4). Table 5 shows that only item 2,3,4,5 and 6 meets the mean average of 3 which is the standard for agreement (see table 5).

Table 1(checklist): Types of instructional materials available in the school

	Instructional Material/Media	Adequately Available (= / > 70%)	Moderately Available (50-69%)	Few Available (< 50%)	Not Available (0%)
1	Realis: real life objects like living things within the school community etc.			√	
2	Pictures: graphs, posters, charts, cartoons, etc.			√	
3	Library: well equipped with current and relevant text books			√	
4	Boards: black board, white board, bulletin board, etc.	√			
5	Projector: table projector, overhead projector, etc.			√	
6	Flip charts				√
7	Computers: desk top, lap top, l-pads, etc.			√	
8	Internet coverage			√	
9	Audio materials: radio, tapes, etc.			√	
10	Audio-visual materials: television, video, etc.			√	
12	Models	√			
13	Manikins			√	
14	Atlases				√
15	Journals, Magazines, etc.				√



TUTORS/EDUCATORS RESPONSE

Table 2: Tutors Socio-Demographic Data

Sex	Frequency (F)	Percentage (%)
Male	20	64.5
Female	11	35.5
Educational qualification	F	%
BNSc	25	80.6
PGDE	5	19.4
Specialization	F	%
Nurse Educator	11	35.5
Midwife Educator	5	16.1
Registered Nurse	15	48.4

Table 3: Utilization of instructional material among Tutors/Educators.

S/N	ITEMS	SA		A		D		SD		MEAN
		F	%	F	%	F	%	F	%	X
1	There are enough instructional materials for teaching-learning Nursing in the school.	1	3.2	10	32.3	15	48.4	5	16.1	<u>2.23</u>
2	Nursing as a science course cannot be taught effectively without appropriate utilization of relevant instructional materials.	10	32.3	20	64.5	1	3.2	-	-	3.29
3	Most of the instructional materials available in school are outdated.	5	16.1	10	32.3	15	48.4	1	3.2	<u>2.61</u>
4	Tutors improvise some relevant instructional materials in the teaching-learning Nursing.	10	32.3	10	32.3	5	16.1	6	19.3	<u>2.77</u>
5	Instructional materials are means for improving the quality of teaching-learning for effective academic performance of the student Nurse.	15	48.4	15	48.4	1	3.2	-	-	3.45
6	Availability and utilization of instructional materials in Nursing schools assist in the achievement of the stated educational goals and objectives.	20	64.5	10	32.3	1	3.2	-	-	3.61
7	Student Nurses understanding of Nursing can be more improved with more utilization of modern instructional materials.	15	48.4	15	48.4	-	-	1	3.2	3.41
8	Instructional materials arouse interest by attracting attention of the student Nurses.	15	48.4	15	48.4	1	3.2	-	-	3.45



STUDENTS RESPONSE

Table 4: Socio-demographic data

Sex	Year one(1)		Year two (2)		Year (3)	
	Freq.	%	Freq.	%	Freq.	%
Males	20	50.0	30	50.0	10	52.6
Females	20	50.0	30	50.0	9	47.4
Total	40	100	60	100	19	100

Students cumulative total = 40 + 60 + 19 = 119

Table 5: Utilization of Instructional Material among student Nurses

S/N	ITEMS	SA		A		D		SD		MEAN
		F	%	F	%	F	%	F	%	X
1	There are enough instructional materials for the purpose of teaching-learning Nursing in the school.	15	12.6	65	54.6	30	25.2	9	7.6	2.7
2	Adequate Nursing instructional materials enable both teaching and learning to be done effectively.	40	33.6	35	29.4	35	29.4	9	7.6	3.0
3	An inadequate instructional material for teaching-learning Nursing is a major problem that leads to poor academic performance of the student Nurse.	65	54.6	35	29.4	19	16.0	0	0	3.4
4	Instructional materials to be used must be totally visible to all students in the class.	64	53.8	40	33.6	10	8.4	5	4.2	3.4
5	Relevance instructional materials can simplify and clarify what was complex and difficult to express in words.	65	54.6	45	37.8	9	7.6	0	0	3.5
6	Good utilization of instructional materials arouses the interest and attracts the students Nurse attention in teaching-learning Nursing.	85	71.4	30	25.2	4	3.4	0	0	3.7
7	Our Tutors are very punctual to class and work generally.	19	16.0	70	58.8	25	21.0	5	4.2	2.8
8	Our Tutors always use relevant instructional materials while teaching.	9	7.6	30	25.2	60	50.4	20	16.8	2.2
9	Our Tutors are competent in utilizing instructional materials.	19	16.0	60	50.1	25	21.0	15	12.6	2.7



10	Our Tutors utilize appropriate instructional materials for illustration in teaching Nursing lessons.	20	16.8	25	21.0	50	42.0	24	20.2	23
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DISCUSSION

The importance of instructional materials used in teaching-learning, in Nursing education and practice can never be over emphasized. However, the study reviewed that there is shortage of instructional materials in the school. This finding is in agreement with Adowoyin (2014) who stipulated in his work on fundamentals of educational technology that most schools in Nigeria were hardly and properly equipped with instructional materials for teaching-learning activities. Adeyemi (2017) also stated in his study conducted on teacher's perception of the effects and uses of learning aids in teaching that non availability of instructional materials in schools serves as barriers to effective teaching. The study shows that only white boards (90%) and anatomical models (78%) were available in their adequate numbers. This finding is in line with Blankenship (2010) who state in his study conducted on the utilization of instructional materials that Boards are the most commonly used instructional material. White boards and markers were evidently present in all the classes with the school this may be due to the fact that white boards and markers are more available because there are cheaper, simpler, easy to use and more durable compare to other forms of instructional materials like computers and projectors. Anatomical models of various human body organs are present in the school in adequate and there are easy to manipulate. This finding is supported by Balogun (2014) who stated in his work on Improvisation of science teaching Equipment, that the most continuously useful instructional aides for teaching-learning process are those that the teachers can manipulate by themselves for the student to understand the concept being taught. These anatomical models are adequately available because there were supplied to the school by a nongovernmental organization.

Findings from the study equally shows that Nursing as a science course cannot be taught effectively without appropriate utilization of relevant instructional materials, yet tutors do not always utilize instructional material and even when they do utilize them, some do not appropriately utilize the instructional materials for illustration in teaching-learning Nursing. This is supported by Mohammed (2016) who mentioned in his work on Assessment of the availability and use of instructional materials, that most teachers do not advocate the use of instructional materials in teaching, this is partially because many teachers are not knowledgeable on instructional media or finds it difficult to use instructional materials when teaching due to lack or inadequate training on its application for effective use in dissemination of knowledge, therefore most teachers often teach without instructional materials. Nursing Students will learn better when most of their senses are captivated through the utilization of instructional materials in the teaching-learning process. Akom (2013) also stated in his study on factors related to the utilization of instructional media that instructional materials have the quality (ability) of influencing



the psychology of the Student-Nurse to learn and understand what there are being taught.

CONCLUSION AND RECOMMENDATIONS

Nursing as a science course cannot be effectively taught without using instructional materials. However, the study revealed that there are not enough instructional materials in teaching-learning Nursing. Also tutors do not always utilize instructional materials in their teaching despite the fact that the importance of utilizing instructional materials in teaching-learning Nursing can never be underestimated. Based on the findings from the study, the following recommendations are made:

1. Adequate instructional materials for teaching-learning Nursing should be made available by the management of the institution.
2. All Nurse Educators should be adequately trained on the use of various types of instructional materials in teaching-learning Nursing.
3. The management of all school should ensure to monitor the utilization of instructional materials by their teachers.

Conflict of interest

There's no conflict of interest declared by the authors.

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