Nurse Educations' Awareness of Instructional Materials in Teaching and Learning in Selected Nursing Institutions in Imo State

Abstract:

The study investigated the awareness of instructional materials in teaching and learning by Nurse Educators in selected nursing institutions in Imo state. Four research questions and two null hypothesis were formulated for the study. The study employed the descriptive cross-sectional design on a target population of 125 lecturers from across the six nursing institutions in Imo state. The sample size for the study was 125 Nurse Educators purposively used because the target population is a manageable one. To decide on the sample, the power analysis was employed but result was ignored because it was too small for a masters degree research. A researcher-made instrument called questionnaire was the instrument for data collection. This instrument had two sections A and B. section A demands the respondents demographic variables while section B seeks answers from the questionnaire items. The instrument was validated by two experts in measurement and evaluation of Alvan Ikoku Federal University of Education Owerri plus the researcher's supervisor. The reliability of the instrument was determined using the test-retest method. The single quantitative method was employed for data collection. The study employed the SPSS package for mean and standard deviation statistics to answer the research questions while the regression ANOVA was used for the null hypotheses. Some of the findings were that respondents expressed they had high awareness of the instructional materials used by Nurse Educators, Recommendations were made among which are: Government should provide enough/adequate instructional materials to all the colleges of nursing in the state, those challenges affecting nurse Educators from effective utilization of available instructional materials should be squarelytackled.

Key words: nurse educations; awareness; instructional materials ; teaching and learning ; nursing institutions; Imo State

Author Information

Ekwulu Mirian Chioma| Julia Ibebuike |Nwagwu Solomon Adanma*| Emesowum Anthonia Chinwendu
Department of Nursing Science, Imo State University, Owerri.
*Corresponding Author: Nwagwu Solomon Adanma, Department of Nursing Science, Imo State University, Owerri

Introduction:

Instructional materials are the resources and tools used as vehicles to help communicate the information. Instructional methods are the approaches or processes used for instructor-learners communications. Instructional materials are tangible substances and real objects that provide the audio and/or

visual component necessary for learning. Many of them can be manipulated. They stimulate a learner's senses and may have the power to arouse emotions. Instructional materials help the teacher make sense of abstractions and simplify complex messages. Often the terms instructional strategy and teaching technique serve to describe both the methods and the materials used in teaching [1]. Instructional materials allow nursing students to interact with words, symbols and ideas in ways that develop their abilities in reading, listening, solving problems, viewing, thinking, speaking, writing, using media and technology. Instructional materials are tangible substances and real objects that provide the audio and visual component necessary for learning [2]

The term instructional materials, also referred to as tools and aids includes both print and non-print media that are intended to supplement, not replace, actual teaching. Research indicates that the use of audiovisual aids facilitates learning [3]

However, the use of instructional materials in developed countries is more significant than in underdeveloped countries due to limited resources and technology. The purpose of instructional materials is to help the nurse teacher deliver a message creatively and clearly. The advantage of a multimedia approach in teaching is to assist learners in gaining increased awareness and skills and in retaining more effectively what they learn [4]. Instructional materials add variety to the teaching- learning experience, reinforce learning and potentially bring realism to the experience as well as saving time and energy on the part of both the teacher and the learner [5].Audiovisual is another type of instructional material used by nursing educators in teaching and learning. As a result of these studies, the field of audiovisuals shifted its emphasis from devices and materials to examination of the teaching-learning process.

Audiovisual education emerged as a discipline in the 1920s.This happened when a visual instruction movement arose, which encouraged the use of visual materials to make abstract ideas more concrete to pupils. As sound technology improved, the movement became known as audiovisual instruction. Educators at that time viewed audiovisuals only as aids to teachers. Not until World War II, when the armed services used audiovisual materials to train large numbers of persons in short periods of time, did the potential of these devices as primary sources of instruction become apparent. In the 1950s and 1960s, development in communications theory and systems concepts led to studies of the educational process, its elements and their interrelationships; among these elements are the teacher, the teaching methods, the information conveyed, the materials used, the student, and the student's responses. Hence, if instructional materials are well organized, well-constructed and properly presented, a successful teaching-learning process would be achieved.

Nursing education aims at the acquisition of cognitive, psychomotor and attitudinal behaviours. In particular, clinical practice training aims to improve the student's critical thinking, analysis, psychomotor, communication and management skills and to fortify the sense of self esteem [6]. As a result of rapid development of technology and the changes in lifestyle, expectations, trends, personality traits and learning styles now vary between generation. The members of generation the first generation of the digital world, are recommended to be educated with rather innovative teaching styles different from traditional. Therefore, it is important for nurses to be able to meet today's needs and cope with the problems brought by this new era. A qualified nursing education, where innovative and active learning methods are used, will also enhance the quality of healthcare services [7]

Clinicians are often ill equipped for the task of teaching, he pointed out that they will exhibit strong personal self-efficacy in the clinical setting but nurse teacher self-efficacy may be lacking, not for lack of desire, but for lack of formal preparation as a teacher. Thus, due to inadequate preparation for the teaching role, these new nurse teachers are set up for trying times, if not failure. Entering an environment of new rules and expectations, the clinician who once felt like an expert now becomes the novice [8].

Teaching and learning is the science of instruction focused and restricted to the domain of materials and educational aids. It represents a kind of specialized science of instructions and has the function to consider teaching and in particular instruction as a whole under aspect of such aids.

The use of instructional materials in teaching and learning in selected Nursing institutions in Imo state has been persistently poor yearly. Various reasons have been attributed to this problem by scholars [8].

Despite the challenges associated with nursing educators' awareness and utilization of instructional materials, no study has ever been done to investigate the factors that influence teaching and learning among nursing educators in selected Nursing institution in Imo state; thus the necessity to embark on the study.

However, it had been empirically supported by [9] that the students taught in nursing schools utilizing relevant instructional materials performed better and also retained more knowledge than those taught without instructional materials. Similar finding was also reported for colleges of Nursing in Imo states by [10]. Therefore, this could mean that the poor achievement being experienced by students in nursing schools may not be unconnected to the state of instructional materials in schools, which are characterized by either available, non-available, inadequate, and non-utilization by many research findings.

Thus, this study sought to investigate the Nursing Educator's Awareness of instructional materials in teaching and learning in selected nursing institution in Imo State

Materials and Methods

Research Design

The researcher used the descriptive cross-sectional study in conducting the study.

Area of the Study

The study was conducted in selected nursing institutions in Imo State which constitutes part of the territory of the then South East, Imo State Colleges of Nursing has Owerri as its headquarter.

Population of the Study

The population of the study was made up of all the nursing Lecturers in the departments of nursing sciences in Imo State university Orlu campus, College of Nursing Amaigbo, College of Nursing Emekuku, College of Nursing Mbano, College of

Nursing Umulogho, and Imo State college of Nursing Orlu. The total population for the study consists of 125 Lecturers in the six nursing schools in Imo State.

Selected Nursing Institutions in Imo State	Number of Educators	Proportion of the Power Analysis
Imo State College of Nursing Orlu	20	6
Department of Nursing science Imo State University, Orlu Campus	37	10
College of Nursing, Amaigbo	16	4
College of Nursing, Emekuku	20	6
College of Nursing, Mbano	16	5
College of Nursing, Umulogho	16	4
Total	**125**	**35**

Table 3.1: *Showing the population of Selected Nursing Institutions in Imo State*

Inclusion Criteria: The inclusion criteria for the study population are as follows: teachers in nursing science department in Imo State University, College of Nursing Amaigbo, College of Nursing Emekuku, College of Nursing Mbano, College of Nursing Umulogho and Imo State College of Nursing, Orlu. The study population was chosen to provide a comprehensive understanding of the Nursing educator's Awareness and Utilization of Instructional Materials in Teaching and Learning in Selected Nursing Institutions in Imo State. The research aimed to capture a diverse representation of the target population of acceptance experiences and number of teachers.

Exclusion Criteria: The study excluded:
1. Teachers who refused to participate in the study.
2. Teachers who were unable to comprehend what the research entails.

Sample and Sampling Technique
Power analysis formula/method for deriving sample size for a study was used to get a sample of 35 respondents as sown below but the entire population of 125 respondents was finally used as the sample for the study due to time and financial constraint. The sample was obtained using Power analysis formula to get the sample size.

Power analysis $= \frac{n}{1+\frac{n-1}{N}}$

Where n=49 (infinite population)
N =125 (study population)

Therefore $\frac{n}{1+\frac{n-1}{N}}$

$= \frac{49}{1+\frac{49-1}{125}} = \frac{49}{1+\frac{48}{125}} \frac{49}{1+0384} \frac{49}{1384} = 35$

Thus the sample size is 35.

N/B: from the fact that the result of the power analysis 35 respondents is too small for masters degree work, the researcher decided to use the entire population of 125 as the sample size for the study since it is a manageable size..

Instruments for Data Collection
The instrument used for data collection is questionnaire derived from the research questions. The questionnaire comprises two sections, Section A and section B. Section A was made up of demographic information of respondents, section B comprised of items on objective and research question of the study. The respondents responded to the options provided. The response pattern was the modified four-point Likert Scale. The responses were given values as shown below:

The scale was weighted as follows:
Strongly Agreed (SA)		4 pts
Agree (A)	3 pts	
Disagree (D)		2 pts
Strongly disagree (SD)		1pt
Very high extent	4 pts	
Moderate extent		3 pts
Low extent		2 pts
Very low extent		1 pt

Validity of the Instrument
This is the extent to which the instrument measures what it was intended to measure. Content validation was used by submitting and giving the questionnaire to the supervisor and two other experts in measurement and evaluation. The research instrument will be developed and will be given to the supervisor for constructive criticism and to assess whether it was capable of collecting the required data, thereafter corrections were made. The questionnaire were returned to the project supervisor for approval.

Reliability of Instrument
To test the reliability, a test-retest method was used, a total of 30 questionnaires were administered to the same group, they were filled and collected back. The result was collated using Pearson Product Moment Correlation method (PPMC) and a Cumulative reliability coefficient of 0.73 was obtained.

Ethical Consideration
Ethical approval was obtained from Imo State University Teaching Hospital Orlu.
The researcher ensured absolute confidentiality of all private information of the subjects as this was used only for the purpose of the study as the respondents' names was not included on the questionnaire. Equally, they retained the right to withdraw at any time.

Method of Data Collection
Prior to data collection, initial visits were made to the 6 different nursing schools in Imo State by the researcher. These

visits provided a forum for introduction and establishment of rapport between the researcher, and the Nurse lecturers. The questionnaires were administered to the Nurse lecturers in their offices after obtaining their informed (written) consent. Questionnaires were collected back from the Nurse Educators immediately after completion. Confidentiality and anonymity were maintained.

Method of Data Analysis
The data obtained from the instrument was collated, organized and analysed using the Statistical Package for Social Sciences (SPSS). Mean and standard deviation statistic were used to answer the research questions while Linear regression was used to analyse hypothesis one and multiple regression was used to analyse hypothesis two.

Results:

S/N	Sex of Respondents	Frequency
1	Males	31
2	Females	94
Total		**125**

Table 4.1: *Demographic characteristics of respondents*
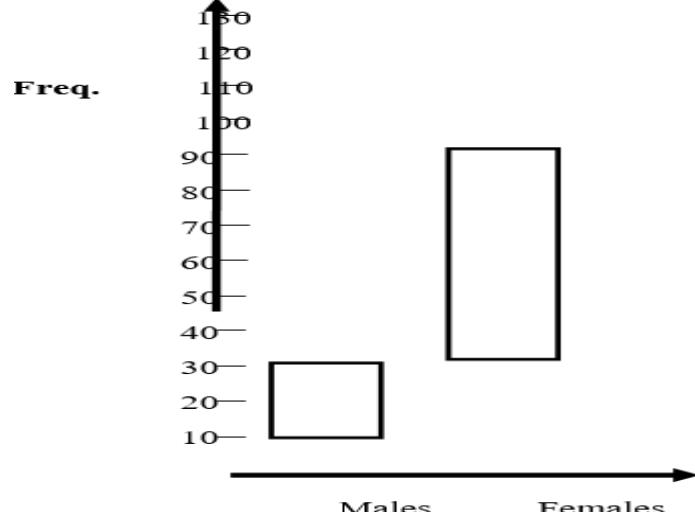
Table 4.1.1: *Demographic characteristics of Nurse Educators by Sex*

Table 4.1.1 shows the demographic characteristics of respondents by sex. It was observed that the male nurse educators were 31 in number while the females were 94 in number. Result of the analysis reveals that female nurse educators formed the dominant group.

S/N	Age of Respondents	Frequency
1	20-30	14
2	30-40	50
3	40-50	43
4	50-60	14
5	60-70	4
Total		**125**

1.1.2: Demographic Characteristics of Respondents by Age
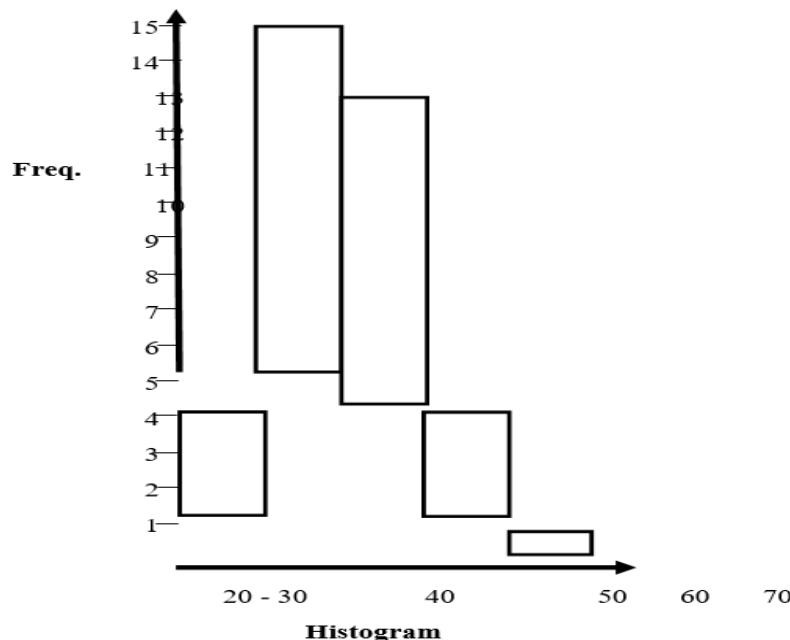
Histogram

Table 4.1.2 shows a histogram of demographic variables of respondents by age. Observation shows that those of age bracket 20-30yrs were 14, those of 30-40 were 50, those of 40-50 were 43 in number, those of 50-60 were 14 and those of 60-70 were 4 in number. Final analysis shoes that respondents between the ages 30-40 and 40-50 years formed the dominant groups for the study.

S/N	Educational Qualification	Frequency
1	B.Sc	61
2	M.Sc	50
3	Ph.D	14
Total		**125**

1.1.2   Demographic characteristics of Respondents by Educational Qualification
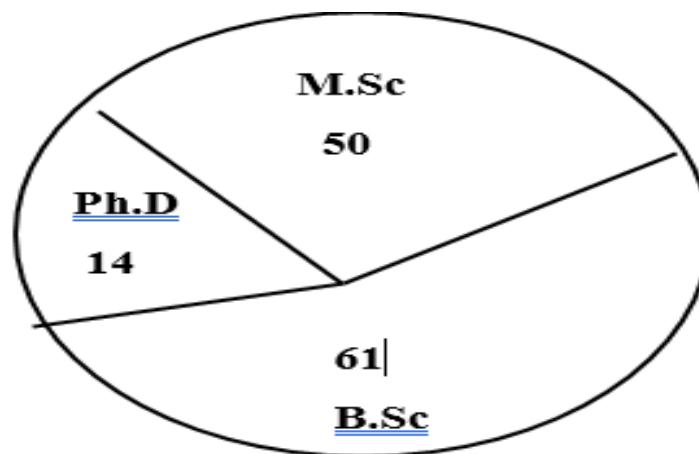
Pie Chart

Table 4.1.3 shows a pie chart of demographic variables of respondents by educational qualification. It was observed that those with B.Sc were 61 in number, those with M.Sc were 50 in number while respondents with Ph.D were 14 in number. Analysis result reveals that respondents with B.Sc degree and M.Sc degree respectively forms the dominant groups of the population of the study

S/N	Item	College of Nursing Okporo Orlu		Imsuth Umuna Orlu		College of Nursing Amaigbo		Holy Rosary Emekuku		College of Nursing Mbano Joint		Our Lady of Mercy Umulogho		Av Ẍ	Av SD	Remark
	Level of awareness of Nurse educators towards instructional material in teaching and learning	Ẍ	SD	Ẍ	SD	Ẍ	SD	Ẍ	SD	Ẍ	SD	Ẍ	SD			
1.	I am familiar with the different types of instructional materials used in nursing education.	4.0	.00	3.7	.48	4.0.	.00	3.5	.84	3.8	.45	3.5	.10	3.74	.561	Accept
2.	I am aware of the digital tools available for teaching nursing students (e.g., e-learning platforms).	3.5	.55	3.4	.52	3.8	.50	3.7	.52	3.0	1.00	3.3	.15	3.43	.739	√
3.	I know where to find relevant instructional materials for my nursing courses.	3.7	.52	3.4	.52	3.8	.50	3.2	1.17	3.4	.89	3.5	.58	3.46	.701	√
4.	I am aware of the importance of instructional materials in improving the learning experience of students.	3.5	.55	3.4	.52	3.8	.50	3.5	.55	3.4	.89	3.5	.58	3.49	.562	√
5.	I regularly stay informed about new developments in instructional materials for nursing education.	3.5	.55	3.6	.52	4.0	.00	3.3	.82	3.0	.71	3.3	.50	3.46	.611	√
6.	I attended training and professional development workshops.	4.0	.00	3.5	.53	4.0	.00	3.5	.84	3.4	.55	3.8	.50	3.66	.539	√
7.	I have access to mare centralized resources and databases	3.8	.41	3.5	.71	4.0	.00	3.0	1.10	3.2	.45	3.0	.82	3.43	.739	√

S/N	Item	X	SD	X	SD	X	SD	X	SD	X	SD	X	SD	Av X	Av SD	Remark
8.	I know the potential benefits of using instructional materials like simulation tools.	3.7	.52	3.5	.71	3.8	.50	3.3	.82	3.4	.89	40.	.00	3.57	.655	√
9.	I am aware of the effectiveness of different instructional materials for various learning styles (e.g., visual auditory).	3.5	.55	3.3	.68	3.8	.50	3.7	.52	3.4	.55	38	.50	3.51	.562	√
	Grand mean	3.69	.109	3.48	.229	3.86	.210	3.41	.356	3.33	.283	3.50	.411	3.53	.298	Accept

Table 4.2.1: *Mean and standard deviation on the awareness level of nurse Educators towards the use of the instructional materials used in pedagogy*

Table 4.2 shows mean responses on the awareness level of nurse Educators towards the use of the instructional materials used in teaching and learning items 1-5 have mean scores of 3.74, 3.43, 3.46, 3.49 and 3.46 with their corresponding standard deviations of .561, .739,.701,.562 and .611 respectively showing acceptance. Other items 6-9 have their means scores 3.66, 3.43, 3.57 and 3.51 with their corresponding standard deviations .539, .739, .655 and .562 respectively. All the mean responses have their grand mean of 3.53 which scores were above the criterion mean of 2.50 indicating acceptance. This implies that respondents accepted that nurse educators have high awareness level of instructional materials for teaching and learning in nursing instructions in Imo State.

S/N	Item	College of Nursing Okporo Orlu		Imsu th Umu na Orlu		College of Nursing Amaigbo		Holy Rosary Emekuku		College of Nursing Mbano Joint		Our Lady of Mercy Umulogho		Av X	Av SD	Remark
	Types of technologies used as instructional materials among nurse educators in teaching and learning	X	SD	X SD		X	SD	X	SD	X	SD	X	SD			
20	I use traditional Digital Technologies example power point, E-books, online journals, Audio-visual aids, Emails or messaging apps for distributing instructional materials and pre-recorded lectures.	3.3	.82	3.5 4.8		4.0 .00		3.5	.55	3.0	1.23	3.8	.50	3.49	.702	Accept
21	I use collaborative tools (e.g., Google Docs, Microsoft teams) for group project; learning management systems (e.g., Moodle, blackboard, Google classroom).	3.5	.84	3.6 .52		3.8 .50		3.5	.55	2.8	1.30	3.8	.50	3.49	.743	√
22	Simulation and Advance Technologies (simulation software for practicing clinic skills; virtual or augmented reality tools; electronic health records (EHR) systems for teaching nursing information)	3.5 .55		3.5 .71		3.8 .50		3.0	.63	2.4 1.34		3.3	.96	3.26	.852	√
23	Assessment technologies (Online testing platforms (e.g., Google Forms, Quiz) for assessment)	3.5 .55		3.2 .42		3.8 .50		3.8	.41	3.4	.89	3.5	.58	3.49	.562	√
24	Communication and networking tools (Mobile	3.3	.82	3.1 .74		3.8 .50		3.0	89	3.2	1.10	3.3	.50	3.23	.770	√

#	Item	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Decision
	learning apps; Social media platforms; video conferencing platforms).															
25	Artificial intelligent (AI) tools for personalized learning	3.7	.52	3.2	.79	4.0	00	3.5	1.23	3.0	1.23	3.0	1.41	3.37	.942	√
26	I completely believe that virtual simulation and online resources can replace hands-on clinical experience for nursing students.	3.5	.84	3.1	.88	3.8	.50	2.8	1.17	3.6	55	4.0	.00	3.37	.843	√
27	I use 3D Anatomical Models and tools to teach complex physiological processes and anatomy structures.	3.2	.75	3.3	1.06	3.3	1.50	3.5	.55	2.4	.89	3.8	.50	3.23	.942	√
28	Podcasts and audio learning can cover a wide range of topics such as nursing theory, clinical procedures.	3.2	.75	3.8	.42	3.8	.50	2.7	1.51	3.6	.55	3.5	1.00	3.43	.884	√
29	Interactive whiteboards/ smart boards highlight and display multimedia content, fostering greater student engagement and participation	3.3	.82	3.2	.79	3.5	58	3.5	.58	3.0	1.00	3.8	.50	3.34	.838	
	Grand mean	3.40	.190	3.35	.443	3.73	.320	3.73	.320	3.04	.3	3.55	.466	3.37	.381	Accept

Table 4.2.3: *means and standard deviation responses on the types of technologies used as instructional materials by nurse educators in teaching and learning*

Table 4.2.3 shows mean response scores on the types of technologies used as instructional materials by nurse educators in teaching and learning in selected nursing institutions. The analysis shows items 20-24 having the following mean score 3.49, 349, 3.26, 3.49 and 3.23 with their corresponding standard deviation .702, .743, .852, .562 and .770 respectively. Other item (25-29) means include 3.37 which 3.37, 3.23, 3.43 and 3.34 with their corresponding standard deviation .942, 843,942, 884 and 838 respectively. The grand mean of 3.37 which is greater the criterion mean indicates high acceptance. The result of the analysis therefore reveals that respondent from across the nursing institutions in Imo State, accepted that items stated in the table in respect to research question three are types of technologies used as instructional materials by nurse educators for teaching and learning in selected nursing institutions in Imo State.

Discussion

On awareness level of nurse educators towards the use of instructional materials in nursing institutions in Imo State findings reveal that all items stated in respect of research question one had mean scores above the criterion mean indicating acceptance. The respondents accepted they were familiar with the different types of instructional materials used in nursing education, they were aware of the digital tools available for teaching nursing students e.g. E-learning platform, that they know where to find relevant instruction materials for nursing courses, they were aware of the importance of instructional materials in improving the learning experience of students, that they regularly stay informed about new developments in instructional materials for nursing education, they attend training and professional development workshops, they have access to more centralized resources and database, they know the potential benefits of using instructional materials and that they were aware of the effectiveness of different instructional materials for various learning styles. Cumulatively, the finding concludes that respondents accepted that nurse educators in nursing institutions in Imo State have high awareness towards the instructional materials used in teaching and learning. This aligns with other studies [11,12].

Reporting on the relationship between level of awareness on the utilization of instructional materials by nurse educators during teaching and learning the regression ANOVA employed proved that there was a significant relationship between awareness level and nurse educators utilization of instructional materials during teaching and learning in nursing institutions in Imo state. This finding seems to support the finding of [13,14] who conducted a similar study on influence of teachers characteristics on utilization of instructional resources in teaching number work in preschools in Westland, sub-country, Nairobi and found out that all the teachers in the preschools understudy adopted the use of counters, abacus, toys and real objects irrespective of their gender, age, academic/ professional qualifications.

Concerning the types of technologies used as instructional materials by nurse educators in teaching and learning in nursing institutions in Imo State, findings reveals that respondents from across the nursing institutions in the State accepted that all the item statement posited in respect of research question three which include: Traditional digital technologies, collaborative tools, simulation and advanced technologies, assessment technologies, communication and networking tools, Artificial Intelligence (AI) tools, 3D Anatomical models and tools, Podcasts and Audio learning, interactive whiteboards and smartboards are types of technologies used as instructional materials by nursing educators for teaching and learning in nursing institutions in Imo State. The above findings corroborate with the finding of [15,16] in his investigation on teacher utilization of instructional materials and academic performance of upper basic students in social studies in Calabar Municipality of Cross River State and found out that the use of radio, television broadcast, use of print materials and use of projectors are other important instructional resource that

facilitate teaching and learning. The finding goes further to support the opinions of [17,18] who argued that local industries can also provide a wider variety of related instructional materials in the form of models, graphics and other visuals using locally available inputs. They maintained that animals, birds, fishes and some processes could be modeled or charted for use in the classroom for education and training programs. Agricultural establishments such as plantations, poultry farms, crop farms, piggery among others can form key instructional materials in agriculture-related subjects, for they are what the learnings can easily relate with and are within reach.

Conclusion:

Having carefully and judiciously examined the awareness of instructional materials by nurse educators in selected institutions of nursing in Imo State, it is imperative to state some points which readers may very factual and educating. That instructional materials are resources that are used as vehicles bring learning at the doorstep of the learner is an age long explanation but it is still be mentioned and researched on because it has not been awareness by learners and teachers. They continue giving lip-service to findings connected to their researches and the learners continue to suffer brain drain.

However, instructional materials are tangible substance and real objects that provides the audio and/or visual component required for learning. Most of them can be manipulated. They make learning concrete and not abstract. Instructional materials help teachers make sense of abstractions and simplify complex messages.

Instructional materials or aids include both the print and non-print media which are expected to supplement not replace the actual teaching. Audio visual education emerged as a discipline around 1920 and it is used more in the developed world than in developing countries.

In the field of nursing research has shown that clinicians are often ill equipped for the task of teaching but they always exhibit strong personal self-efficacy in the clinical setting but nurse teacher/ educator self-efficacy may be lacking not for lack of desire, but for lack of formal preparation as a teacher, hence the study.

References:

1. Abolfazi, A., Ramin, B. & Kourosh, A. (2020). Barriers to clinical education from the perspective of nursing students in Iran: An integrative review. Archives of pharmacy practice. 11(1).
2. Ezennakwe, J.O., Ndie, E.C. & Anieche, J.E. (2022). Availability and utilization of instructional materials in nursing training institutions in Anambra state. International journal of medical and health sciences research. 9(1). 18-26.
3. Mirna, A.F., Ayman, M.H. & Ahmad, T. (2018). Challenges facing nursing education in the advanced healthcare environment. International journal of Africa nursing sciences. 9,105-110.
4. Wissam, E.M., Ghizlane, C., Khadija, E.K. & Mohamed, R. (2021). Assessment practices of student's clinical competences in Nurse Education. The open nursing journal
5. Hwangji, S.L. (2020). Collaborative learning needed for healthcare management education. International journal of economics, business and management research. 4(09).
6. Adamu, A., Hayaat, I.M., Ladan, M.A. & Adamu, K.M. (2021). Awareness and utilization of moodle among students at nursing schools in North-Western Nigeria. Bayero journal of nursing and healthcare. 3, 833-847.
7. Yulan, M.P., Ana, M. & Rona, F.M. (2021). Overview of the nursing students' needs: The initial step in designing English instructional materials. Al-Lisan: Journal Bahasa (e-journal). 6: 2.
8. Asmaa, H.W., Seham, E.H., Safaa, A.Z. & Heba, K.O. (2021). Efficacy of instructional program on clinical nurse educators implementation of cooperative learning at faculty of nursing. Tanta scientific nursing journal. 22(3).
9. Yeter, D.O., Mesude, D. & Gözde, G.I. (2022). Effects of Different Teaching Methods on Nursing Students' Motivations and Critical Thinking Disposition: A quasi-experimental Study. International e-Journal of Educational Studies (IEJES).
10. Munnir, U.K. and Musa, N.O. (2020). poor achievement being experienced by students in nursing schools. 1(11-115). Nigeria. ISBN 11-7823-611-209-1.
11. Uchechi, B.O. (2021). The role of teaching and learning aids/methods in a changing world. New challenges to education: Lessons from around the world. 19.
12. Williams, V.S. & Dwyer, F. (2019). Effect of metaphoric (visual / verbal) strategies in facilitating student achievement of different educational objectives. International Journal of Instructional Media, 26(2), 205-211.
13. Zwart, D.P., Noroozi, O., Luit, J.E.H., Goei, S.L. & Nieuwenhuis, A. (2020). Effects of digital learning materials on nursing students' mathematics learning, self-efficacy and task value in vocational education.
14. Ilkay, C. (2019). Active learning methods used in nursing education. Journal of pedagogical research. 3(2). Katowa-M.P, Chitundu, K., Monde, M.W., Maimbolwa, M.M. & Jere, L.D. (2022). Evidence based practice and critical thinking in nursing education and practice: A scoping review of literature. International journal of nursing and midwifery. 14(4).
15. Bvumbwe, T. (2016). Enhancing nursing education via academic-clinical partnership: An integrative review. International journal of nursing sciences. 3, 314-322.
16. Culha, I. (2019). Active learning methods used in nursing education. Journal of Pedagogical Research Volume3, Issue 2, 2019 http://dx.doi.org/10.33902/JPR.2019254174
17. Yeter, D.O., Mesude, D. & Gozde, G.I. (2022). Effects of different teaching methods on nursing students' and critical thinking disposition: A quasi-experimental study. International e-journal of educational studies (IEJES). 6, 95-104.
18. Princeton, J.C. & Gaspar, T.M. (2019).First-line nurse administrators in academic: How are they prepared, what do they do, and will they stay in their jobs? Journal of Professional Nursing7 2:79-87.

Submit your next manuscript to ScienceFrontier and take full advantage of:

• Convenient online submission

• Thorough peer review

• No space constraints or color figure charges

• Immediate publication on acceptance

• Research which is freely available for redistribution

• Submit your manuscript at: https://sciencefrontier.org/submit-manuscript?e=2