

Relationship Between Utilization of Instructional Materials and Teachers' job Performance in Senior Secondary Schools, Maiduguri Education Zone, Borno State – Nigeria

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Abstract

This study assessed the utilization of instructional materials and teachers' job performance in senior secondary schools in Maiduguri metropolis Borno state. The study was guided by one objective, hypothesis and one research questions were answered. The study adopted a correlational research design. The population for the study was 1,478 teachers in senior secondary schools in Maiduguri Educational zone, Borno State out of which 739 teachers were drawn to form the sample for the study. Check list and structured questionnaires were used for data collection. To determine reliability of the instruments for measuring the data, a test-retest method was adopted which was administered to senior secondary school in the education zones that were not sampled. Cronbach Alpha Statistical analysis was used to determine the internal consistency coefficient of the instruments. Result of the data analysis gave Alpha coefficient values of 0.75 and 0.78 respectively for the instruments. These moderately high coefficient values indicated that the instruments are reliable to be used for the study. To ensure the validity of the instruments, the initial draft of the instrument was subjected to face validation. The analysis of the data collected was done using both descriptive and inferential statistics. The research question was answered using descriptive statistics (mean, standard deviation, charts, frequency count and percentage). The study revealed that there was a high level of utilization of instructional materials in senior secondary schools in Maiduguri metropolis Borno state. Based on the finding it was recommended that teacher education programmed should integrate materials development whereby teachers learn how to design and construct various materials and equipment which could be used for teaching-learning process.

Keywords: *Utilization of Instructional Materials and Teachers Job Performance*

Introduction

Effective use of teaching materials will positively enhance the teaching The Federal Government of Nigeria (2014) has recognized the importance of educational resources in the realization of educational objectives. It states that, “educational services -will facilitate the implementation of educational objectives and promote efficiency in education. The national policy of education emphasized the availability and adequacy of educational resources for secondary schools (FGN).

There are resources on teaching aids used in the teaching and learning process. Umudhe and Arisi (2006) stressed that instructional materials are different kinds which teachers and students employ in classroom in order to make the teaching and learning process more effective and productive. They are real things and representation of real things which stimulate one or more of the senses and which enrich the teaching learning process. An instructional material makes learning available to a wider audience, controls the pace of learning, promotes better understanding and helps to overcome physical difficulties in presenting the subject content.

The question is whether Borno State has available instructional materials considering the number of secondary schools in the state. It is the responsibility of Borno state government to make available and adequate numbers and ranges of instructional materials and resources in a variety of formats that are appropriate, timely, and essential to the attainment of specified educational objectives. The importance of instructional materials cannot be under estimated. Instructional materials are range of materials and equipment which make a visual impression on the students, assist the teacher in his task, helping him increase his effectiveness in the classroom. They communicate information effectively, and learning process in science. Okebukola (2005), opined that various reasons have been adduced as major factors among which is lack of necessary teaching materials/aids in schools as responsible for the observed low trend on teachers' job performances. Laboratory facilities and instructional performance materials to which teachers have been exposed have contributing factors to the teacher's job performance. poor laboratory facilities and lack of relevant textbooks are among factors that are responsible for low performance of teachers in senior secondary schools.

According to Tella (2007) and Emmanuel (2008), instructional materials provide the physical media through which the intents of the Curriculum are experienced. They are collections of materials and equipment that process 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. The importance of instructional materials in enhancing effective teaching and learning cannot be undermined due to the positive impact it has on the level of teachers' performance and assimilation of students.

Teaching-learning in Borno State Senior Secondary Schools without Proper utilization of instructional materials such as, chart, maps, curves and graphs etc. will not bring out the expected results. The materials being used in teaching were called instructional materials and teaching aids, which assist the achievement of the stated educational goals and objectives. This means that the utilization of the above teaching aids are helping in teaching and learning process (Iyila 2002, Dele 2003 and Fatumbi2003).

Objectives of the study

The objectives of the study are to:

- i. assess the level of the utilization of Instructional Materials in Senior Secondary Schools in Maiduguri Metropolis Borno State.

Research Question

The following research questions was answered:

- i. what is the assessment level of utilization of instructional materials in senior secondary schools in Maiduguri metropolis Borno state?

Hypothesis

The following null hypothesis was tested at 0.05 significance level:

H₀₁: There is no significant relationship between utilization of instructional materials and teachers' job performance in senior secondary schools in Maiduguri metropolis Borno state.

Literature Review Utilization of Instructional Materials in Senior Secondary Schools

The range for what is an instructional material within a classroom is from a piece of chalk to sophisticated electronic equipment. Moreover, instructional materials are viewed differently by teachers and students, parents, and government officials. For example, instructional materials at a distal level may be represented by the availability and presence of textbooks in classrooms; whereas, at the proximal level, attainment of the grade level and skills required by the materials may be more critical for the teacher and student. distal levels. Fakomogbon (2000), Foin (2001), Friedman (2002), Fatumbi, (2003), Gidado (2005) pointed out that it is not enough simply to provide instructional materials such as textbooks.

Ngada (2015) observed the extent to which instructional materials are available to the classroom teacher and how they utilized the materials. He stressed that out of the classes that were surveyed 96% had one or more chalkboards; 75% of the blackboards were for writing on with chalk. Surprisingly less than 50% (45.8%) of the teachers possessed white chalk and only 37% had coloured chalk. A few classrooms (37%) had blackboards for writing on with special markers. The use of instructional material in teaching could extend the scope and power of instruction. It could also help to bridge the gap between the teacher and students in terms of understanding different concepts in the lesson, thereby making learning more immediate and more relevant. Balogun, (2002) opined that locally produced instructional materials encourage creative expression and foster experimentation, sensitive to tactile and visual experience improves creativity in classroom environment, communicates to children and teachers what is expected of them and what is happening in the classroom. A well-planned environment is inviting and interesting and conveys a message. In the absence of ready – made resources, teacher improvises appropriate alternatives to solve the problem. Teachers normally improvise materials in order to promote the physical, social, emotional and cognitive growth of young children. The materials are designed to encourage children to be curious and to take initiative by exploring and interacting with other children and adults. Young children learn when their thoughts and expectations interact with materials, ideas and people; such interaction, according to Judy (2004), gives children meaningful developmental learning experience. Locally produced instructional materials give teacher/pupils the pride of using their talents, allows a teacher to reproduce his potentials, in concrete form and increase teachers' knowledge of the subject matter.

Ahmad (2005) did his research on relationship between human and materials resources and on academic achievement in Chemistry among Yobe State Senior Secondary Schools students. Correlation coefficient was used to access the relationship between the variables. Population and sample of the study were graduated students for the period of five (5) years. The population sample

of students used was, 676 and all Chemistry teachers in those schools, checklist of textbooks and laboratories available in those schools were also considered. His findings revealed

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that the higher the number of human and materials resources, the higher the number of credit/pass and the lower the number of failures.

Bukayo (2019) assessed the utilization of instructional materials as tools for effective academic performance of students: implication for counselling, survey research design was used for the study, sampled 100 students of senior secondary schools, the result of the study revealed that inadequate use of instructional materials affects students' performance negatively. Adaliku (2013) examined the influence of instructional materials on academic performance of senior secondary school students of Cross River State, quasi experimental design was adopted, the population of this study comprises of 100 students were selected from five secondary schools in Yakur Local Government Area, Pearson Product Moment Correlation Coefficient used as statistical tool, the finding of the study revealed that students taught with instructional materials performance significantly better.

In a study carried out by Ibrahim (2005) on the relationship between instructional materials 'and students' academic achievement in English, Mathematics and Biology, among Maiduguri metropolitan and Jere Local Government Area Senior Secondary. Schools, ten (10) Senior Secondary Schools were selected for the study, the instrument used was questionnaire for teachers and students SSCE results for five years of English, Biology and Mathematics 'and checklist for instructional materials. The findings of the study showed that the availability of instructional materials had significant effect on the performance of students at SSCE in the local governments studied.

Ibi (2002) conducted his research on relationship between educational resources and students' academic achievement in Taraba State Senior Secondary Schools The results of the study revealed significant relationship between instructional materials and students' academic achievements. A study carried out by Kida (2004) on the relationship between human and material resources and students' academic achievement in Borno State also used a co-relational study on 20 schools and checklist. Questionnaires used on teachers and students revealed a significant Relationship between instructional materials and academic achievement of the students. Schools that had adequate instructional materials and adequate human resources score higher in their academic achievement while those schools that have less score, i.e. below average.

Ogunbote and Odunewu (2008) conducted a research on school library and utilization in the Ijebu North Local Government Area of Ogun state, Nigeria. A survey research design was adopted for the study. Twelve secondary schools were selected for the study, five teachers and thirty students were selected from each school for questionnaire administration. The study revealed that available school library resources in the schools are inadequate. The study recommends that to arrest this unfortunate development, administrators and proprietors of schools which are basically the government at various levels should separate library budget from that of the general education.

This will ensure that funds meant for the establishment and developments of school libraries are not diverted.

Oladapo (2004) assessed the availability and utilization of instructional materials in adult literacy teaching and learning programs in Lagos state. 200 respondents were selected as a sample of the study. Questionnaire was used for data collection. The finding of the study revealed that printed materials are mostly the instructional aids available in the sampled centers; they include primer, pictures, and newspapers. (90.5%) of the respondents agree that their instructors make use of instructional materials for teaching and only (9.5%) claimed that their instructors were not. However, (37.5%) of the respondents claimed that the instructional materials were adequate and (64.5%) agreed that available instructional materials were inadequate. Similarly, the study revealed that (72.5%) of the respondents claimed a high degree of utilization of instructional materials while (15.5%) agreed that the instructors, utilization of instructional materials in low degree (12%) claimed that their instructors did not make use of relevant instructional materials. The study recommended that since the use of instructional materials boosted the performance of the instructors and attendance and regularity of the learners on literacy, all stakeholders in literacy provision should endeavour to provide relevant instructional materials for the programs.

Lukas and Olaniyan (2007) in a study instructional material as determinant of effective teaching and learning process in private secondary schools in Lagos state, Nigeria found that, majority of teachers have the required skills to operate some media instructional materials. The finding suggests that teachers should be trained on the proper use of modern technological instructional material.

Ayoti, Mukasa and Waseng'ula (2013) assessed factors influencing preparation and utilization of instructional media in teaching Kiswahili in selected public secondary school in Kenya. Survey research design formed the basis of the study. The study population comprised of 28 head teachers, 90 Kiswahili teachers and 39, 327 students in selected public secondary schools in Sabatia district. Simple random sampling method was used to select head teachers, 30 Kiswahili teachers and 39 form three students. Teachers and student questionnaire were used to collect the data. An interview guide was prepared to obtain data from school head teachers. Descriptive statistics such as means, percentages and frequency counts. The findings revealed that 352 respondents who never participated in making the instructional media resources asked to give reasons for not participating in making them. 96.5% of the respondents said they lack knowledge and skills to make the media resources. The findings recommend that the school administrator should liaise with ministry of education and conduct refresher course so as to equip teachers with relevant skills of preparing and using instructional resources effectively.

Methodology

The study used correlational research design, correlation design focused on the relationship between utilization of instructional materials and teachers' job performance in public senior secondary schools in Maiduguri Educational Zone, Borno State. Correlation design is suitable because it is used in obtaining information that is related to the degree of relationship between two or more variables. In this case, survey design was used to assess the. The population for this study comprised all government public senior secondary schools distributed within Maiduguri educational zone. Records from the Ministry of Education, Statistic office, (2017) revealed that at

the time of the study, there are twenty-five (25) senior secondary schools in Maiduguri Educational zone Borno State with a total of one thousand four hundred and seventy-eight (1,478) teaching staff. Stratified random sampling was adopted in drawing the sample of public senior secondary schools, while simple random sampling was used in drawing the sample of schools for the study. The sample size used in this study was twenty -five (25)

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senior secondary schools (100%) of the population. while seven hundred and thirty-nine (739) teachers were sampled. 50% of the population. This implies that the larger the sample size, the more representative of the population it accommodates and therefore, the more the reliable and valid the result will become. Stratified random sampling was used to ensure that each group in the population was represented in proportion to their numbers and appropriate in correlation studies that require comparison between variables.

Level of Utilization of Instructional Materials in Senior Secondary Schools in Maiduguri metropolis Borno state

S/N	ITEMS	SA	A	UN	D	SD	Total
1	Teachers usually use video tape recorders in teaching	97 (13.1%)	163 (22.1%)	50 (6.8%)	279 (37.8%)	150 (20.3%)	739 (100.0%)
2	Teachers usually use Work book to give assignment.	123 (16.6%)	417 (56.4%)	56 (7.6%)	106 (14.3%)	37 (5.0%)	739 (100.0%)
3	Teachers usually use chalk boards in teaching	321 (43.4%)	377 (51.0%)	22 (2.9%)	10 (1.4%)	9 (1.2%)	739 (100.0%)
4	Teachers usually use instructional materials in teaching science	347 (46.9%)	327 (44.2%)	23 (3.1%)	36 (4.9%)	6 (0.8%)	739 (100.0%)
5	Teachers usually use alarmclock in teaching physics	165 (22.3%)	296 (40.0%)	116 (22.5%)	136 (18.4%)	26 (3.5%)	739 (100.0%)
6	Teachers usually use Stopwatches in teaching physics	192 (25.9%)	360 (48.7%)	84 (11.4%)	89 (12.0%)	14 (1.9%)	739 (100.0%)
7	Teachers usually use overhead projectors in teaching	107 (14.5%)	199 (26.9%)	113 (15.3%)	231 (31.3%)	89 (12.0%)	739 (100.0%)
8	Teachers usually use Microscopes	167 (22.6%)	413 (55.9%)	79 (10.7%)	60 (8.1%)	20 (2.7%)	739 (100.0%)
9	Teachers usually use Wooden cylinders	141 (19.1%)	326 (44.1%)	111(15.0%)	127(17.2%)	34(4.6%)	739 (100.0%)
10	Teachers usually use Set square	164 (22.1%)	398 (53.9%)	54(7.3%)	103(13.9%)	20(2.7%)	739 (100.0%)
11	Teachers usually use Triangular prism	195 (26.4%)	349 (47.2%)	94(12.7%)	86(11.6%)	15(2.0%)	739 (100.0%)
12	Teachers usually use Human skeleton	245 (33.2%)	359 (48.6%)	39(5.3%)	62(0.4%)	34(4.6%)	739 (100.0%)
13	Teachers usually use Chart for different organs	198 (26.8%)	437 (59.1%)	48(6.5%)	49(6.6%)	7(1.0%)	739 (100.0%)

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14	Teachers usually use Hydrochloric acid	185 (25.0%)	419 (56.7%)	70(9.5%)	55(7.4%)	10(1.4%)	739 (100.0%)
15	Teachers usually use Test tube holders	188 (25.4%)	443 (59.9%)	43(5.8%)	38(5.1%)	7(1.0%)	739 (100.0%)
12	Teachers usually use Human skeleton	245 (33.2%)	359 (48.6%)	39(5.3%)	62(0.4%)	34(4.6%)	739 (100.0%)
13	Teachers usually use Chart for different organs	198 (26.8%)	437 (59.1%)	48(6.5%)	49(6.6%)	7(1.0%)	739 (100.0%)
14	Teachers usually use Hydrochloric acid	185 (25.0%)	419 (56.7%)	70(9.5%)	55(7.4%)	10(1.4%)	739 (100.0%)
15	Teachers usually use Test tube holders	188 (25.4%)	443 (59.9%)	43(5.8%)	38(5.1%)	7(1.0%)	739 (100.0%)

Source: Field Survey,

Key: High level = 80.7% and Low level = 19,3%

Table 1.1 shows the level of utilization of instructional materials in senior secondary schools in Maiduguri Metropolis Borno state.

Results revealed that 279 representing 37.8% of the respondents disagree that teachers usually use video tape recorders in teaching process. This implies that the level of utilization of instructional material is low, thereby hampering effective teaching exercise.

417 respondents representing 56.4% of the respondents agree that teachers usually use workbook to give assignment. This implies that there is high utilization of work book in teaching exercise, thereby enhancing teacher's job performance.

377 respondents representing 51.0% of the respondents agree that teachers usually use chalkboards in teaching process. This implies a high level of utilization of instructional materials in senior secondary schools in Maiduguri Metropolis.

347 respondents representing 46.9% of the respondents strongly agree that teachers usually use instructional materials in teaching science in Maiduguri metropolis secondary schools; implying that there is high level of utilization of the instructional materials which leads to high teacher's job performance in the area under review.

296 respondents representing 40.0% of the respondents agree that teachers usually use alarm clock in teaching physics practical, implying that there is high level of utilization of this instructional material in senior secondary schools in Maiduguri metropolis.

360 respondents representing 48.7% of the respondents agree that teachers usually use stop watches in teaching physics practical. This implies that there is high level of utilization of this instructional material in teaching exercise thereby enhancing teacher's job performance in the area under review.

231 respondents representing 31.3% of the respondents disagree that teachers usually use overhead projectors in teaching exercise. This implies that there is low level of utilization of overhead projector instructional material in senior secondary schools in Maiduguri metropolis.

413 respondents representing 55.9% of the respondents agree that teachers usually use microscopes instructional materials in teaching exercise in senior secondary schools in Maiduguri metropolis, implying that there is high level of utilization of these instructional materials in teaching processes in senior secondary schools in the area under review.

326 respondents representing 44.1% of the respondents agree that teachers usually use wooden cylinders' instructional materials in teaching exercise, implying that there is high level of utilization of these instructional materials thereby enhancing teacher's job performance in the area under review.

398 respondents representing 53.9% of the respondents agree that teachers usually use Set Square during teaching. Implying that there is a high level of utilization of this instructional material in ensuring effective teaching process.

349 respondents representing 47.2% of the respondents agree that teachers usually use triangular prism instructional material in teaching process. This implies a high level of

utilization of this instructional material by teachers in senior secondary school in Maiduguri metropolis.

359 respondents representing 48.6% of the respondents agree that teachers usually use human skeleton instructional material in teaching exercise, the implication is that there is high level of utilization of this instructional material in senior secondary schools in Maiduguri metropolis

437 respondents representing 59.1% of the respondents agree that teachers usually use charts of different organs for instruction. This implies that there is high level of utilization of this instructional material by teachers in teaching exercise.

419 respondents representing 56.7% of the respondents agree that teachers usually use Hydrochloric acid during teaching exercise indicating high level of utilization of the instructional materials in senior secondary schools in Maiduguri metropolis

493 respondents representing 59.9% of the respondents agree that teacher's usually use test tubes holders in teaching exercise which implies that there is high level of utilization of these instructional materials by teacher in teaching exercise.

Hypothesis one (H₀₁): There is no significant relationship between utilization of instructional materials and teachers' job performance in senior secondary schools in Maiduguri metropolis Borno state.

Table 2.1: Result of Pearson Product Moment Correlation on Relationship between Utilization of Instructional Materials and Teachers' Job Performance in Senior Secondary Schools in Maiduguri metropolis Borno

Variable	N	\bar{x}	SD	DF	r	P-Value
Utilization of Instructional Materials	739	21.7589	1.3511	737	0.9999**	0.0932
Teachers' Job Performance	739	63.5781	2.1122			

Source: Field Survey,

Table 1.2 indicates a significant relationship between utilization of instructional materials and teachers job performance in senior secondary schools in Maiduguri metropolis Borno state.

The probability value (P = 0.0932) is greater than alpha ($\alpha = 0.05$) level of significant at a correlation index $r = (0.9999)$. Hence, the null hypothesis which stated that there is no significant relationship between utilization of instructional materials and teachers' job performance in senior secondary schools in Maiduguri metropolis Borno state is rejected at 0.05 level of significant. Meaning there was a significant relationship between utilization of instructional materials and teachers' job performance in senior secondary schools in Maiduguri metropolis Borno state. ($r = 0.9999$, $P < 0.05$). This implies that teachers' use of instructional materials and boosts their job performance.

Discussion

The finding of this study suggested that the null hypothesis was rejected. It further revealed that there was a high level of utilization of instructional materials in secondary schools. finding of this study was not in line with the study of Bukayo (2019) assessed the utilization of instructional materials as tools for effective academic performance of students:

implication for counselling, survey research design was used for the study, sampled 100 students of senior secondary schools, the result of the study revealed that inadequate use of instructional materials affects students' performance negatively. The finding was in line with the study of Adalikwu (2013) examined the influence of instructional materials on academic performance of senior secondary school students of Cross River State, quasi experimental design was adopted, the population 100 students were selected from five schools in Yakur Local Government Area, Pearson Product Moment Correlation Coefficient used as statistical tool, the finding of the study revealed that students taught with instructional materials performance significantly better, the finding equally in line with the study of Ibi(2002), Oladapo(2004), Lukas and Olayinka(2009). While finding of this study contrast with Obanike (2008), Nwachuku (2000), Iwobi and Okifan (2008).

Conclusion

Based on the finding of this study, it was concluded that teachers' job performance is to a very large extent effective utilization of instructional materials, this implies that there is high utilization of work book in teaching exercise, thereby enhancing teacher's job performance.

Finding

The study found that there was a high level of utilization of instructional materials in senior secondary schools in Maiduguri metropolis Borno state

Recommendation

In the light of the above finding, the following recommendation was made:

Teacher education program should integrate materials development whereby teachers learn how to design and construct various materials and equipment which could be used for teaching-learning process.

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