

**Instructional materials as determinants of students' academic performance at the secondary school level In Ikorodu local government, Lagos State, Nigeria.****Information Impact:**  
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ISSN: 2360 – 994X (e-version)**David O. Okhakhu***Lead City University, Ibadan***Micheal Damilare Oladiran***Lead City University, Ibadan***Damilola A. Omoike**

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**Abstract**

This study was carried out to find out the effects of instructional resources on the academic achievement of secondary school students. The study is descriptive in nature and it adopted a survey design. Stratified random sampling technique was used for the selection. This therefore gives 29.8 respondents from teachers and 251.2 students making a total of 281 respondents. Teachers and students in the sampled schools were administered, an investigator – constructed questionnaire. Two research questions were raised for the study. Data collected were analyzed using simple percentages. The findings showed that instructional resources play a significant role in enhancing performance of students in schools. Furthermore, the results revealed that schools with adequate quality of teachers and enough instructional material resources showed superiority in academic achievements test than schools without adequate teacher quality and instructional material resources. As seen in the findings from this research, it could be easily concluded that the main reason for lack of proper use of instructional materials in the secondary schools is the lack of users' education. The study therefore concludes that if authorities and staff should take this up as an urgent responsibility to build the expected capacity by orientating the users of the available instructional materials properly, improper use of available instructional materials will be curbed in Nigerian especially in the secondary schools setting.

**Keywords:** Education, instructional resources, instructional materials, academic quality**Introduction**

Education is the process of facilitating learning. Knowledge, skills, values, beliefs, and habits of a group of people are transferred to other people, through storytelling, discussion, teaching, training, or research. Education frequently

takes place under the guidance of educators. Any experience that has a formative effect on the way one thinks, feels, or acts may be considered educational.

Education has been the pillar upon which all meaningful national

developments are built. According to Fayemi (1991), it is the instrument which sets the pace for growth, development and understanding of issues in all their ramifications. For education to be relevant in a society it has to be effectively taught and this can only be achieved through the use of good methods and suitable instructional materials. The National Policy on Education (1981) recognizes education as the nation's greatest asset towards the quick development of its economic potentials, sociological and human resources, hence it focuses on the integration of the individual into a sound and effective citizen. It also plans equal educational opportunities for all at the primary, secondary and tertiary levels.

In the school setting, the teaching and learning process is not complete without an evaluation of the learning outcome. The academic performance of a student measures the student's level of understanding of what he or she has been taught. Epunam (1999) defines academic performance of a child as the learning outcomes of the child which includes the knowledge, skills and ideas acquired and retained through their course of study within and outside the classroom situations. Education, according to Charles and Coombs (2010) consists of two components. He classified the two components into inputs and outputs.

According to him, inputs consist of human and material resources and outputs are the goals and outcomes of the educational process. Both the inputs and outputs form a dynamic organic whole and if one wants to investigate and assess the education system in order to improve its performance, effects of one component on the other must be examined.

Instructional materials which are educational inputs, plays a very important role in the teaching-learning process. It enhances the memory level of the students. Chang (2009) was of the opinion that the use of instructional materials would make discovered facts glued firmly to the memory of students. Slavin (2010) also added that, a well planned and imaginative use of visual aids in lessons should do much to banish apathy, supplement inadequacy of books as well as arouse student's interest by giving them something practical to see and do, and at the same time helping to train them to think things out themselves. Balogun (1971) commented that "Audio-visual materials, as integral part of teaching-learning situations help to bring about permanent and meaningful experience.

In enumerating the factors that could be responsible for varying intra and inter-school/academic achievement, Coombs (1970), listed four important factors, including the acute scarcity of instructional

materials which he said constrained educational systems from responding more fully to new demands. He claimed that, in order to do their part in meeting the crisis in education, educational systems will need real resources that money can buy, they will need a fuller share of the nations' manpower, not merely to carry on the present work of education, but to raise its quality, efficiency and productivity. They will need buildings, equipments and more learning materials. According to Quadri et al., (2003), the usefulness of instructional materials is based upon the following ideas that learning is more likely to occur in a class where there is: active involvement of learners in the teaching learning process; negotiation of individual learning objectives', opportunities for demonstration, practice and feedback; continuous evaluation of learning; and support for learners and teachers.

The achievement of high academic performance in any subject requires effective and efficient teaching and learning process. Therefore, it is important for educationist to investigate the factors or determinants of students' academic performance in any subject of interest. This need is germane at this time that the academic performance of students is on the decline. In Nigeria, there has been a steady decline in the academic performance in

WAEC and NECO examinations. This poor performance cuts across all subjects. This poor performance calls for investigation in order to fully understand the underlying factors or variables that are responsible with a view to remedying the situation. It is therefore apt that a study of this kind is undertaken to come up with the possible ways of making the teaching and learning more effective with high performance oriented.

### **Objective of the study**

The objective of this study is to examine the instructional materials as determinant of students improved performance at the Senior Secondary School level. The objective of the study is also to; find out the instructional materials that are available in the selected secondary schools in Lagos state, verify how often students and teachers use these available instructional materials in the selected secondary schools in Lagos state, find out how accessible these instructional materials are to the users (students and teachers) of the selected secondary schools in Lagos state and also identify the factors affecting the use of the available instructional materials in the selected secondary schools in Lagos state.

It is hoped that the teacher's would be able to select appropriate instructional resources that could be used to teach the

students. The learners too would be acquainted with the resources that can enhance their performance in school. Findings of this study will also go a long way to help the parents, the principals, the school administrators and educational planners to know the type of instructional resources to make provision for in our secondary schools in order to ease the job of the teachers.

### Methodology

The survey research design was adopted for this study. The population for this study consists of secondary schools students of Ikorodu Local Government Area of Lagos State. According to the data collected from the records office of the Lagos State Ministry of Education, Ikorodu District Zone two (2) there are twenty-eight approved public secondary schools in Ikorodu local government with three hundred and fourteen teachers and

### Demographic of respondents

**Table 1: sex of respondents**

Variables	Frequency	Percent
Male	164	59.9
Female	110	40.1
Total	274	100.0

The sex Colum explains that 59.9 percent respondents were male while 40.1 percent

two thousand three hundred and forty-one students. A stratified random sampling technique was adopted for the study based on schools and class of study a sampling fraction of 20% was used to select the sample size for each of the secondary schools. This therefore gives 29.8 respondents from teachers and 251.2 respondent students making a total of 281 respondents.

### Findings and discussion

A total of Two hundred and Eighty-one (281) copies of questionnaire were administered to both teachers and students in the commercial classes in public secondary schools in Ikorodu Local Government of Lagos state, Nigeria. Two hundred and seventy-four (274) copies of questionnaire were dully filled and returned giving a response return rate of 97.5%.

were female. This indicates that men are more than woman in the study population.

**Table 2: marital status of respondents**

Variables	Frequency	Percent
Single	254	92.7
Married	13	4.8

<b>Divorced</b>	<b>7</b>	<b>1.5</b>
<b>Total</b>	<b>274</b>	<b>100.0</b>

Here the marital status column indicates that 92.7 percent of the respondents are still single which was as a result of the high population of the student who are

more involved in the research; 4.8 percent are married and only 1.5 percent was divorcees. This shows that majority of the study population are single.

**Table 3: educational qualification of respondents**

<b>Variables</b>	<b>Frequency</b>	<b>Percent</b>
Postgraduate Degree	4	1.4
1 <sup>st</sup> Degree/HND	7	2.6
NCE/OND	17	6.2
JSSCE	246	89.8
Total	274	100

In the educational qualification Colum we noticed that 1.4 percent of the respondents hold post graduate degree while 2.6 percent of the respondents have their 1<sup>st</sup> Degree/HND. The NCE/ND holders are represented by 6.2 percent of the total

respondents while 89.8 percent of the respondents are JSSCE holders. This analysis shows that majority of the respondents are Junior Secondary School Certificate Examination (JSSCE) holder.

<b>Instructional Materials</b>	<b>TEACHERS</b>	<b>STUDENT</b>
CD -ROM/DVD-ROM Capabilities	7(25%)	2(0.8%)
USB Storage Capabilities	-	7(2.8%)
Multimedia devices (white board, smart board, LCD projectors etc.)	5(17.9%)	32(13%)
Electronic Document Scanners	-	-
E-Learning Classroom	4(14.3%)	73(29.7%)
Online Public Access Catalogue (OPAC)	1(3.6%)	2(0.8%)
Instructional Radio Broadcast	-	2(0.8%)
Video capture and storage devices	-	-
Instructional Television Broadcast	2(7.1%)	6(2.4%)
Computers for students and lecturers' use	1(3.6%)	4(1.6%)
Audio capture and storage devices	-	1(0.4%)
Internet access/connectivity	2(7.1%)	43(17.5%)
Printers / Plotters	-	-
Current Hard copy Books	2(7.1%)	64(26%)
Current Hard Copy Magazines and Journals	2(7.1%)	6(2.4%)
Current Electronic Books	2(7.1%)	2(0.8%)
Current Electronic Magazines and Journals	-	2(0.8%)

**Table 4: Available instructional materials**

Table four (4) revealed that 25%, 17% and 14% of the teachers concur that CD-ROM/DVD-ROM capabilities, Multimedia devices (white board, smart board, LCD projectors etc.) and E-Learning Classroom are available for use in the selected secondary schools. The table also revealed

that 29.7%, 26% and 17.5% of the students category concur that E-learning classroom, current hard copy books and Internet access/connectivity were made available respectively in the selected secondary schools in Ikorodu Local Government, Lagos State.

**Table 5: students/teachers frequency of access to the available instructional materials**

Usability of Media	TEACHERS				STUDENTS			
	VO	R	FR	NR	VO	R	FR	NR
CD -ROM/DVD-ROM Capabilities	15(53.6%)	-	11(39.3%)	-	34(13.8%)	17(6.9%)	-	102(41.5%)
USB Storage Capabilities	-	21(75%)	-	1(3.6%)	-	111(45.1%)	-	2(0.8%)
Multimedia devices (white board, smart board, LCD projectors etc.)	22(78.6%)	-	1(3.6%)	1(3.6%)	84(34.1%)	1(0.4%)	-	1(0.4%)
Electronic Document Scanners	-	-	2(7.1%)	-	-	-	1(0.4%)	1(0.4%)
E-Learning Classroom	19(67.9%)	-	-	2(7.1%)	-	34(13.8%)	2(0.8%)	2(0.8%)
Online Public Access Catalogue (OPAC)	-	-	1(3.6%)	1(3.6%)	-	-	2(0.8%)	2(0.8%)
Instructional Radio Broadcast	-	2(7.1%)	-	-	-	-	1(0.4%)	1(0.4%)
Video capture and storage devices	-	-	-	2(7.1%)	-	2(0.8%)	39(15.9%)	-
Instructional Television Broadcast	-	2(7.1%)	-	-	2(0.8%)	-	129(52.4%)	-
Computers for teachers' and learners' use	-	2(7.1%)	14(50%)	-	-	212(86.2%)	-	2(0.8%)
Audio capture and storage devices	-	-	2(7.1%)	-	-	2(0.8%)	-	-
Internet access/connectivity	19(67.9%)	-	1(3.6%)	1(3.6%)	-	48(19.5%)	2(0.8%)	-
Printers / Plotters	-	10(35.7%)	1(3.6%)	-	-	-	1(0.4%)	1(0.4%)
Current Hard copy Books	2(7.1%)	-	-	-	2(0.8%)	-	-	-
Current Hard Copy Magazines and Journals	-	-	-	2(7.1%)	2(0.8%)	-	-	-

Current Electronic Books	-	<b>2(7.1 %)</b>	-	-	10(4.1 %)	-	-	64(26%)
Current Electronic Magazines and Journals	-	<b>2(7.1 %)</b>	-	-	-	51(20.7 %)	-	-

Table five (5) revealed the extent to which the instructional resources were accessible by both teachers and learners in the selected secondary schools in Ikorodu Local Government, Lagos State. The table revealed that 78.6% of the teachers access the multimedia devices (white board, smart board, LCD projectors etc.) very often, 67.9% respondents in the teachers' category access both the E-Learning Classroom and the Internet access/connectivity as often as possible

while only 75% respondent access the USB Storage Capabilities regularly. Table five also revealed that 52.4% students do have a fair access to the Instructional Television Broadcast regularly and 41.5% students also have regular access to USB storage capabilities while only 86.2% students have regular access to Computers for both teachers' and learners' use in the selected secondary schools in Ikorodu Local Government, Lagos state, Nigeria.

**Table 6: Adequacy of access to the available instructional materials**

	TEACHERS				STUDENTS			
	VA	A	FA	NA	VA	A	FA	NA
CD -ROM/DVD-ROM Capabilities	<b>6(21.4 %)</b>	<b>12(42.9 %)</b>	<b>9(32.1 %)</b>	<b>3(10.7 %)</b>	8(3.3%)	36(14.6 %)	-	92(37.4 %)
USB Storage Capabilities	-	<b>1(3.6%)</b>	-	<b>1(3.6%)</b>	19(7.7 %)	-	-	112(45.5%)
Multimedia devices (white board, smart board, LCD projectors etc.)	<b>6(21.4 %)</b>	<b>14(50 %)</b>	<b>1(3.6 %)</b>	<b>5(17.9 %)</b>	17(6.9 %)	43(17.5 %)	60(24.4 %)	41(16.7 %)
Electronic Document Scanners	-	-	<b>2(7.1 %)</b>	-	15(6.1 %)	-	12(4.9 %)	32(13%)
E-Learning Classroom	<b>8(28.6 %)</b>	<b>6(21.4 %)</b>	<b>10(35.7%)</b>	<b>2(7.1%)</b>	16(6.5 %)	-	2(0.8 %)	109(44.3%)
Online Public Access Catalogue (OPAC)	-	<b>7(25%)</b>	<b>1(3.6 %)</b>	<b>16(57.1 %)</b>	-	-	-	2(0.8%)
Instructional Radio Broadcast	-	<b>2(7.1%)</b>	-	-	-	-	1(0.4%)	1(0.4%)
Video capture and storage devices	-	-	-	<b>2(7.1%)</b>	-	2(0.8%)	-	129(52.4%)
Instructional Television Broadcast	<b>11(39.3%)</b>	<b>2(7.1%)</b>	-	<b>4(14.3 %)</b>	2(0.8%)	-	-	74(30.1%)

Computers for learning use	4(14.3%)	2(7.1%)	-	5(17.9%)	-	-	-	2(0.8%)
Audio capture and storage devices	-	-	2(7.1%)	-	-	2(0.8%)	-	56(22.8%)
Internet access/connectivity	4(14.3%)	9(32.1%)	1(3.6%)	1(3.6%)	32(13%)	-	2(0.8%)	154(62.6%)
Printers / Plotters	-	1(3.6%)	1(3.6%)	-	16(6.5%)	-	1(0.4%)	128(52.0%)
Current Hard copy Books	2(7.1%)	-	-	-	2(0.8%)	-	65(26.4%)	-
Current Hard Copy Magazines and Journals	-	7(25%)	-	2(7.1%)	2(0.8%)	13(5.3%)	43(17.5%)	-
Current Electronic Books	-	2(7.1%)	-	-	56(22.8%)	16(6.5%)	-	17(6.9%)
Current Electronic Magazines and Journals	4(14.3%)	2(7.1%)	-	15(53.6%)	-	2(0.8%)	-	-

The table revealed that 57.1% of the teachers access to the Online Public Access Catalogue (OPAC) is not adequate, 53% respondents in the teachers' category access to current electronic magazines and journals were not adequate while only 50% respondent access the multimedia devices (white board, smart board, LCD projectors etc.) adequately . Table six also revealed that 62.6% student access to the Internet

and other connectivity were not adequate and 52.4% students do not also access the video capture and storage devices adequately while only 17.5% students have a fairly adequate access to multimedia devices (white board, smart board, LCD projectors etc.) in the selected secondary schools in Ikorodu Local Government, Lagos state, Nigeria.

**Table 7: Challenges of using the instructional materials**

	TEACHERS				STUDENTS			
	SA	A	D	SD	SA	A	D	SD
Lack of maintenance culture	8(28.6%)	3(10.7%)	3(10.7%)	5(17.9%)	103(41.9%)	8(3.3%)	17(6.9%)	53(21.5%)
Inadequate technical support	3(10.7%)	9(32.1%)	1(3.6%)	9(32.1%)	81(32.9%)	23(9.3%)	16(6.5%)	65(26.4%)
Unavailability of adequate media	5(17.9%)	7(25.0%)	3(10.7%)	2(7.1%)	215(87.4%)	10(4.1%)	15(6.1%)	5(2.0%)



resources								
Out dated media resources	<b>6(21.4%)</b>	<b>3(10.7%)</b>	<b>6(21.4%)</b>	<b>13(46.4%)</b>	25(10.2%)	93(37.8%)	20(8.1%)	1(0.4%)
Regular breakdown of the media resources	<b>9(32.1%)</b>	<b>4(14.3%)</b>	<b>4(14.3%)</b>	<b>3(10.7%)</b>	132(53.7%)	73(29.7%)	9(3.7%)	-
Irregular supply of power source	<b>10(35.7%)</b>	<b>3(10.7%)</b>	<b>3(10.7%)</b>	<b>6(21.4%)</b>	32(13.0%)	186(75.6%)	6(2.4%)	10(4.1%)
Irregular internet Connectivity/ functionality	<b>4(14.3%)</b>	<b>3(10.7%)</b>	<b>3(10.7%)</b>	<b>12(42.9%)</b>	98(39.8%)	35(14.2%)	55(22.4%)	11(4.5%)
Irregular intranet connectivity / functionality	<b>14(50.0%)</b>	<b>3(10.7%)</b>	<b>4(14.3%)</b>	<b>1(3.6%)</b>	169(68.7%)	24(9.8%)	35(14.2%)	72(29.3%)

Table seven shows the constraint against the use of instructional materials by both teachers and learners in the selected secondary schools, Ikorodu local government area, Lagos state, Nigeria. For the purpose of this research strongly agree and agree will be merged as agreed while strongly disagree and disagree will be merged as disagreed. The table revealed that (50%+10.7%) 60.7% teachers agreed with irregular intranet connectivity / functionality as a constrain to the use of instructional materials, (42.9%+10.7%) 53.6% teachers disagreed with Irregular internet Connectivity/ functionality, while only (10.7%+7.1%) 17.8% teachers disagreed with unavailability of adequate media resources as a factor militating

against the effective use of instructional materials in the selective secondary schools in Ikorodu Local government area of Lagos, Nigeria. Table ten also revealed the factors that limit the students use of instructional materials, (68.7%+9.8%) 78.5% students agreed that irregular intranet connectivity / functionality as a factor militating against the use of instructional materials, (13%+75.6%) 88.6% respondents agreed with Irregular supply of power source as a factor limiting the use of instructional materials in the selective secondary schools in Ikorodu Local government area, Lagos, Nigeria.

## Conclusion and recommendations

The study concluded that factors responsible for low implementation / usage of instructional materials for academic purposes in school by both teachers and students includes; lack of maintenance culture, inadequate technical support, unavailability of adequate media resources, outdated media resources, regular breakdown of the media resources, irregular supply of power source, irregular internet connectivity/ functionality and irregular intranet connectivity/functionality.

Based on the findings of the study, Secondary schools should have a functioning library, equipped with various types of instructional materials for teaching and learning. SUBEB should also ensure that qualified teachers with Information Communication Technology (ICT) skills were employed for adequate use of instructional materials.

On the basis of the findings of this study, it is recommended that one way to improve the achievements of students is to provide more qualified teachers in the secondary schools to teach. Another way is to increase the provision of adequate instructional material resources for the teaching of the various subject.

Bearing in mind the importance of instructional material resources to teaching

and learning, adequate instructional Aids should be provided for teaching in order to increase students' performance in the subject. Both teacher quality and material resources are intimately related. Teachers can be frustrated without adequate supply of materials needed to teach their subjects. It is therefore highly essential to provide adequate and relevant materials for the teaching and learning in all other subjects in the secondary school curriculum.

Finally, the school administrators and the government must always have consultations with the experts or professionals in the design of appropriate instructional resources. In-service training programmes, workshops, seminars and conferences on the selection and use of instructional resources should be organized from time to time to enrich and update the knowledge of the teachers in our schools.

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