EDUCATIONAL RESOURCES' STATUS AS DETERMINANTS OF STUDENTS' LEARNING OUTCOMES IN SENIOR SECONDARY SCHOOL GOVERNMENT IN OYO STATE, NIGERIA

Ikmat Olanrewaju Junaid
Institute of Education,
University of Ibadan, Ibadan
E-mail: iojunaid@yahoo.com
GSM: +2348068063892

Abstract

Over the years, issues of poor academic performance of students both in examinations have been of grave concern to all stakeholders in the education industry. This study investigated the relationship between all categories of educational resources (human, financial and material resources) and Senior Secondary School students' learning outcomes in Government in Oyo State. The study is a survey research that adopted multi-stage sampling technique. Data were collected from 450 SSS II Government students and 30 teachers from 30 public and private schools in Oyo State. Four research questions and two validated instruments guided the study with reliability coefficient of 0.67 for SERI and 0.86 for GAT. Data were analysed using descriptive statistics, Pearson Product Moment Correlation and Multiple Regression. Results revealed that human resources were reportedly the most available 300 (66.7%), while financial resources were the least obtainable educational resources in the secondary school. The rates of utilisation revealed that 271 (60.2%) respondents admitted to using available resources most times. Results further indicated that there were moderate relationships between availability and adequacy of utilisation of the various educational resources and students' learning outcome (r = 0.64). The three predictor variables jointly accounted for 62% (Adjusted R^2 = 0.621) observed variance in students' learning outcome in Government as it was statistically significant. It is recommended that all stakeholders in the school system should ensure availability, usability and adequacy of all educational resources since they all predict students' learning outcomes and ensure that they are always utilised optimally in the teaching-learning processes.

Keywords: Educational resources status; Human resource; financial resources; Material resources; Government; Learning outcome.

Introduction

In order to achieve the aims and objectives of effective teaching and learning, some variables must be considered. These factors include availability, adequacy and utilization of diverse educational resources. Educational resources are synonymous with materials that help teachers to facilitate the teaching-learning process (e.g. audio, visual and audio-visual aids). Ogunleye (2002) defined educational resources as materials and people that can be tapped in order to achieve our end-product. Our end product here means, learning outcome which is change in behaviour. This definition reveals the importance of educational resources as it covers both human and non-human resources used in the actual business of teaching and learning in order to achieve our educational goals. Mezieobi (2003) viewed instructional materials as materials used in the process of instruction. These include textbooks, teachers' guide, real objects, maps, charts, globes, calculators, computers, electronic and manual boards, so on.

Some scholars have raised some issues which bordered on the availability and use of these instructional materials. For instance, Obioha (2006) identified two main constraints militating against the successful improvisation of educational resources. These are the technical and the human factors respectively. While the technical factors relate to the question of degree of accuracy and precision that is possible with the improvised equipment, the human factor relates to the teachers' skill in developing the resources while providing the appropriate learning experience to the learners. Also, Bassey (2002) reported lack of adequate professional training as a major problem militating against the effective use of local resources for science teaching. Esiobu (2005) stressed the need for a definite well planned training programme of improvisation for teachers. He suggested regular and meaningful workshops on improvisation technique for science teachers to improve and up-date their competence.

The use of educational materials does not only encourage teachers and students to work collaboratively but also results in more cooperative learning activities among the students. Ikerionwu (2000)

refers to educational resources as objects or devices which help the teacher to make learning meaningful to the learners. Similarly, Ezegbe (1994) classified them into two as visual materials, made up of reading and non-reading materials and audio-visual materials, comprising electrically operated and non-electrically operated materials. Osakwe and ltedjere (1993) summarized these resources as textual like books, audio-visual and human resources. They stated that these resources are either used individually or collectively in any meaningful teaching and learning situation. The purpose of educational resources is to promote efficiency of education by improving the quality of teaching and learning. Incorporating these tools and materials present, support and reinforce teaching. According to Aduwa-Ogiegbaen and Imogie (2005), these materials and resources including audio tape recorders, video tape recorders, slide projectors, opaque projectors, overhead projectors, still pictures, programmed instruction, filmstrips, maps, charts, graphs and many more which offer a variety of learning experiences individually or in combination to meet different teaching and learning experiences.

From a broad spectrum, educational resources are not only material resources that are used in teaching and learning process. These resources also include financial and human resources which equally play vital roles in the school system. Human resources in a typical secondary school connote the various teaching and non-teaching staff who help to implement the school curriculum. Teachers are the pivot on which the success of any educational programme revolve. From this assertion, it is obvious that the teacher as an individual who carries out the activities of teaching and learning. He engages in act of causing people to learn. He is also said to be the connecting rod between teaching and learning. Teacher factors are the qualification, expertise, motivation, experience, quality, etc that directly or indirectly influence teacher's job performance. It is also the conditions or inputs of the teachers that can make or mar teaching and learning processes. According to FRN (2004), teachers are indispensable to any educational system. In fact, no educational system can rise above the quality of its teacher.

Ogunmwonyi (2009) argued that human resource (HR) is a critical factor in the overall performance of an organization. He clarified that HR relates to the human side of enterprise. What this means in

effect is that human beings are the driving force in organization, give it life, purpose, results and through labour turn raw material into tangible items that can meet our needs and wants. This implies that without the people to work on and with all other educational resources, the corporate objectives and goals of the school system will never be achieved. Certainly, the human resources in secondary schools comprise all teaching and non-teaching staff members who utilize all the other school resources towards the attainment of the educational goals and objectives. They are the ones who operate, engineer and manage the entire school system and thus make it functional.

Even though many people do tend to focus on teachers alone, the non-teaching staffs (such as the librarian, guidance counselor, food vendor, etc) equally play significant roles in the efficient running of the school system. Human resources, according to Ajaja and Kpangban (2004), refer to the human aspect of resources which facilitate effective teaching and learning. Durosaro (1991) submitted that human resources involve staff and student personnel, academic and non-academic members of a school community. Human resources provide the focal point on which any meaningful economic development could be anchored; human beings are considered the most valuable of all resources because they manipulate other resources for them to yield benefit.

Human resources, according to Ajaja and Kpangban (2004), refer to the human aspect of resources which facilitate effective teaching and learning. They went further to say that the teacher is seen as a facilitator and manipulator of available human and material resources. This he does through his instructional method, procedure and styles. In the process, he uses available instructional materials to facilitate effective learning outcome, through effective teaching. The role of the teacher in the educational system is the organization and integration of effective teaching and learning. The implementation of any policy hinges on the availability of skilled or trained human resources. Therefore the extent to which much needed labour is feasible will automatically influence the success or otherwise of any given policy.

Statement of the Problem

Over the years, issues of poor students' academic performance both in school-based and external examinations have been of grave concern to all stakeholders in the education industry. There are lots of complaints from the public about the quality of students produced in our secondary schools, vis a viz their learning outcome even in Government as a school subject. Arguably, this lamentation of students' abysmal performance in the various school subjects (Government inclusive) has been blamed on several factors, including inadequate and deficient educational resources. Although some studies have been carried out in this regard, most of these researchers focused on instructional (or material) resources only while neglecting the other categories of educational resources. This study therefore investigated the effects of availability, adequacy and utilization of human, financial and material educational resources as determinants of students' learning outcome in Government in Oyo State secondary schools.

Research Questions

Based on the stated problems, the following research questions guided the study:

1) What are the current trends of human resources, financial resources and material resources in Oyo State secondary schools in terms of their variety and availability in teaching-learning process?
2) What are the levels of utilization and adequacy of the various human resources, financial resources and material resources in Oyo State secondary schools?
3) Are there any relationships between these educational resources and students' learning outcome?
4) What are the relative and composite contributions of the various educational resources to students' learning outcome in Government in Oyo State?

Methodology

This study is a non-experimental design. It is a correlational survey research. Multi-stage sampling technique was employed in the study. Four out of the eight educational zones in Oyo State were selected.

Simple random sampling technique was then used to select thirty (30) secondary schools from these four educational zones. Fifteen (15) respondents were then randomly drawn from each of the schools, thus a total of four hundred and fifty (450) respondents participated in the study. Students who took Government and their teachers were involved in the study. Two validated research instruments: School's Educational Resources Inventory (r = 0.67) and Government Achievement Test (r = 0.86) – were used to collect data, which were analysed using frequency counts, percentages, Pearson product moment correlation and multiple regression.

Results

Research Question 1: What are the current trends of human resources, financial resources and material resources in Oyo State secondary schools in terms of their variety and availability in teaching-learning process?

Table 1: Descriptive Analysis of Trend of Educational Resources

S/n	Items	Availability and Adequacy Status					
Material Resources		Not Avail-able	Avail-able	Available but Inadequate	Available and Adequate	$\bar{x}$	SD
1	Students' furniture	14 (3%)	27 (6%)	299 (66%)	110 (24%)	3.12	0.64
2	Teachers' furniture	0 (0%)	13 (3%)	355 (79%)	82 (18%)	3.15	0.43
3	Well-equipped library	218 (48%)	13 (3%)	111 (25%)	108 (24%)	2.24	1.28
4	Recommended Govt textbooks	122 (27%)	13 (3%)	249 (55%)	66 (15%)	2.58	1.04
5	Past question papers	110 (24%)	13 (3%)	300 (67%)	7 (6%)	2.54	0.93
6	Dictionary	138 (31%)	0 (0%)	192 (43%)	230 (27%)	2.65	1.17
7	Charts/Models	300 (67%)	0 (0%)	97 (22%)	53 (12%)	1.78	1.14
8	Real objects	163 (36%)	0 (0%)	261 (58%)	26 (6%)	2.33	1.03
9	Maps/Atlas/Globe	218(48%)	14 (3%)	55 (12%)	163 (36%)	2.36	1.39

10	Chalkboard/Whiteboard	0 (0%)	27 (6%)	314 (70%)	109 (24%)	3.18	0.52
11	Wall clock	41 (9%)	0 (0%)	287 (64%)	122 (27%)	3.09	0.79
12	Computer system	192 (43%)	0 (0%)	218 (48%)	40 (9%)	2.24	1.10
13	Printer	218 (48%)	0 (0%)	122 (27%)	110 (24%)	2.28	1.29
14	Photocopier	245 (54%)	0 (0%)	96 (21%)	109 (24%)	2.15	1.31
15	Projector	315 (70%)	13 (3%)	40 (9%)	82 (18%)	1.75	1.21
Financial Resources							
16	Govt grant/subvention/subsidy	339 (75%)	111(25%)	0 (0%)	0 (0%)	1.25	0.43
17	Special intervention fund	423 (94%)	14 (3%)	13 (3%)	0 (0%)	1.12	0.53
18	Students' school fees	150 (33%)	13 (3%)	164 (36%)	123 (27%)	2.58	1.21
19	Sports levy	67 (15%)	27 (6%)	178 (40%)	178 (40%)	3.04	1.03
20	Examination fees	108 (24%)	13 (3%)	233 (52%)	96 (22%)	2.70	1.06
21	Community contributions	395 (88%)	14 (3%)	0 (0%)	41 (9%)	1.30	0.87
22	Investment returns	271 (60%)	82 (18%)	0 (0%)	97 (22%)	1.83	1.20
23	PTA Contributions	93 (21%)	27 (6%)	28 (6%)	302 (67%)	3.20	1.23
24	Alumni/public contribution	422 (94%)	28 (6%)	0 (0%)	0 (0%)	1.06	0.24
25	Other levies/fees collection	219 (49%)	80 (18%)	41 (9%)	110 (24%)	2.09	1.25
C. Human Resources							
26	School principal	40 (9%)	13 (3%)	397 (88%)	0 (0%)	2.79	0.59
27	Vice-principal	67 (15%)	0 (0%)	274 (61%)	109 (24%)	2.94	0.92
28	Head of department	259 (58%)	0 (0%)	68 (15%)	123 (27%)	2.12	1.35
29	Government teacher	67 (15%)	14 (3%)	137 (30%)	232 (52%)	3.19	1.05
30	Other subjects teacher	14 (3%)	0 (0%)	246 (55%)	190 (42%)	3.36	0.65
31	Classroom teacher	55 (12%)	0 (0%)	273 (61%)	122 (27%)	3.03	0.87

32	Guidance counselor	218 (48%)	0 (0%)	109 (24%)	123 (27%)	2.30	1.32
33	House master	341 (76%)	0 (0%)	68 (15%)	41 (9%)	1.58	1.05
34	School bursar	259 (58%)	0 (0%)	53 (12%)	138 (31%)	2.16	1.38
35	School librarian	246 (55%)	0 (0%)	122 (27%)	82 (18%)	2.09	1.24
36	Secretary	122 (27%)	0 (0%)	176 (39%)	152 (34%)	2.80	1.18
37	Typist	191 (42%)	0 (0%)	83 (18%)	176 (39%)	2.54	1.37
38	Food vendor/cook	69 (15%)	0 (0%)	315 (70%)	66 (15%)	2.84	0.86
39	Security guard	107 (24%)	0 (0%)	262 (58%)	81 (18%)	2.70	1.02
40	School gardener	190 (42%)	14 (3%)	110 (24%)	136 (30%)	2.43	1.30

Results in Table 1 show the varying status of availability and adequacy of educational resources in the secondary schools. Many of the respondents indicated that some essential school resources are not available, such as projectors (70%), government grant/subvention/subsidy (75%), special intervention fund (94%), community contributions (88%), alumni/public contributions (94%), and school house masters (76%). Besides, some essential school resources were not sufficiently provided or supplied by the school owners and administrators, as they were reported as inadequate. In the category of school's material resources, 66% of the respondents reported that students' furniture was not adequate in number, considering the population of the students. Similarly, teachers' furniture (79%), recommended Government textbooks (55%), past question papers (67%), dictionaries (43%), real objects (58%), chalkboard/whiteboard (70%), wall clocks (64%) and computer systems (48%) were reported as inadequate though they were present in those sampled schools. Remarkably, no single item of schools' material resources was reported to be adequate in quantity or amount.

In financial resources, students' school fees (36%), sports levy (40%) and examinations fees (52%) were inadequate in amount, though they were reported sources of income to the schools. Several sources of revenue to schools (such as government grant, subvention, subsidy, special intervention fund, alumni and public contributions) were reportedly unavailable for the running of the sampled secondary

schools in Oyo State. Thus, these financial resources are scarcely available in the schools. In the 2014 fiscal year of Oyo State, even though 30% of the total budget (N188.9 billion) was voted for education, up from UN's recommendation of 26%, the full implementation of this budget in the school system is in doubt (Oyo State Ministry of Finance, 2014). However, 67% of the respondents claimed that they have sufficient PTA contributions in their schools. In schools' human resource category of educational resources, schools principals (88%) and vice-principals (61%) were largely reported not to be enough in number. Also, the secondary schools were not sufficiently staffed by other subject teachers (55%), classroom teachers (61%), food vendors/cook (70%), and even security personnel (58%). But then, 58% of respondents indicated that they have sufficient number of Government teachers in their schools. These confirm the findings of Abdo and Semela (2010) who assert that "educational resources are not available in the schools for the teaching and learning process.

Table 2: Rates of Usability of School Resources

	Frequency	Percent (%)	Cumulative Percent (%)
Never	0	0	0
Rarely	69	15.3	15.3
Most Times	271	60.2	75.6
Always	110	24.4	100.0
Total	450	100.0	

Research Question 2: What are the levels of usability and adequacy of the various human resources, financial resources and material resources in Oyo State secondary schools?

From the above Table 2, the rates of utilization or usability of the available educational resources in the sampled secondary schools are depicted. Interestingly, there is no respondent who never used at least some of these available school resources. However, while majority of the respondents (60.2%) admitted to using available educational resources most times, only few of the respondents (24.4%) always used these available resources in the course of teaching-learning process. This aligns with Bassey (2002) who reported lack of adequate professional training as a major problem militating against the effective use of resources for teaching.

Also, Table 2 reveals one fact: it is one thing to have these necessary school resources; it is another thing to have them present in adequate amounts or quantities. Still, it is entirely a different thing to put these scarce resources to optimal use in the secondary schools. Majority of the respondents (60.2%) admitted to using those available educational resources most times; while only few respondents (24.4%) always used these available resources in the course of teaching-learning process. The facts that most people (especially teachers) don't use these school essential resources always for the optimal performance of the school system may be as a result of their lack of skills or technical incompetence in handling these resources. These findings corroborate earlier findings by Junaid (2010) that audio-visual materials are not sufficiently available and that other facilities, though available, were inadequate in terms of their availability, condition and adequacy.

Research Question 3: Are there any relationships between these educational resources and students' learning outcome?

Table 3: Correlation Matrix of Educational Resources and Government Achievement Test

Var	**MR**	**FR**	**HR**	**GAT**
MR	1.000			
FR	.401	1.000		
HR	.559	.564	1.000	
GAT	.578	.661	.692	1.000
Mean	37.46	20.17	38.87	19.57
SD	7.94	4.87	8.27	5.89

Correlation is significant at alpha level 0.05 (2-tailed)
Key: MR = *Material Resources; FR = Financial Resources; HR = Human Resources; GAT = Government Achievement Test*

Table 3 reveals the relationships that exist between educational resources and students' achievement in Government. The result from the table shows that schools' material resources ($r = 0.578$, $p < 0.05$), financial resources ($r = 0.661$, $p < 0.05$) and human resources ($r = 0.692$, $p < 0.05$) all have statistically significant positive relationships with

students' learning outcome in Government. All three independent variables report moderate positive relationship. Findings show that linear relationships exist not only between educational resources and students' achievement in Government but also amongst the component variables of educational resources. Results from the table show that schools' material resources ($r=0.578$, $p<0.05$), financial resources ($r=0.661$, $p<0.05$) and human resources ($r=0.692$, $p<0.05$) all have statistically significant relationships with students' learning outcome in Government. All the three independent variables have moderate positive relationship with students' learning outcome. This means that students in schools with greater educational resources will perform better than their colleagues in schools with lesser resources, all other things being equal. This corroborates Ogunleye (2002) who found that schools with adequate instructional materials performed better than those with inadequate educational resources.

Also, Table 3 shows that while the extent of the relationship is greatest between human resources and students' learning outcome, it is least between schools' material resources and students' learning outcome. Importantly too, the various types of educational resources – materials, finance and human resources – are well linked and related in the school system. It is the available fund in a school that the authorized personnel will use to acquire needed school materials. Again, without the availability, adequate mix and efficient utilization of all these school resources, the school will not be able to function optimally. All these signify that educational resources are strong correlates of students' academic performance. This substantiates the findings of *Adeogun and Osifila (2008) that p*hysical, materials, financial and human resources were significantly related to students' academic performance. Also, the finding lends support to the results of previous studies carried out by Moronfola (2002), Ogunleye (2002), Isola (2010) and Famoroti (2012) which showed that educational resources have significant effects on students' academic achievement. However, it was contrary to the findings of Abdulkareem, et al (2008) who submitted that there were weak relationships between the availability of physical resources and students' academic performance.

Research Question 4: What are the relative and composite contributions of the various educational resources to students' learning outcome in Government in Oyo State?

Table 4: Model Summary (Criterion – Achievement in Government)

Model	R	R Square	Adj. R^2	Std. Error
1	.789	.623	.621	3.629

Predictors: (Constant), school's human resources, school's material resources, school's financial resources

Table 5: Regression ANOVA (Criterion – Achievement in Government)

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	9715.163	3	3238.388	245.923	.000
Residual	5873.062	446	13.168		
Total	15588.224	449			

Significant at alpha level 0.05

The multiple regression coefficient (R) shows the linear relationship among the predictors (School's human resources, material resources and financial resources) and students' achievement in Government in Oyo State. Table 5 shows the multiple correlation R = 0.789, the multiple R Squared is 0.62 and the Adjusted R Squared is 0.62. This indicates that the three predictor variables accounted for 62.1% observed variance in students' achievement in Government and it is statistically significant ($F_{(3, 449)} = 245.9$, $p < 0.05$). The result implies that students' achievement can be reliably predicted by the predictor variables (school human resources, material resources and financial resources).

Table 6: Regression Coefficients on the Predictor Variables are Most Potent

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-5.685	.964		-5.899	.000
School's material resources	.172	.026	.232	6.578	.000
School's financial resources	.445	.043	.368	10.376	.000
School's human resources	.253	.028	.355	9.051	.000

Significant at alpha level 0.05

The Table 6 shows that all educational resources factors – school's material resources, $\beta = 0.232$, $t(450) = 6.578$, $p < 0.05$; financial resources, $\beta = 0.368$, $t(450) = 10.376$, $p < 0.05$; and human resources, $\beta = 0.355$, $t(450) = 9.051$, $p < 0.05$ – all the three school resources variables do influence significantly the prediction model. That is, each and all of them are related educational resources factors that do allow significant prediction of students' achievement in Government. Financial resources variables are the most potent in the model.

The multiple regression coefficient (R) shows the linear relationship among the predictors (school's human resources, material resources and financial resources) and students' achievement in Government. Table 4 shows the multiple correlation R = 0.79, the multiple R Squared is 0.62 and the Adjusted R Squared is 0.62. This indicates that the three predictor variables accounted for 62.1% observed variance in students' learning outcome in Government and it is statistically significant ($F_{(3, 449)} = 245.9$, $p < 0.05$). This implies that the criterion variable (students' learning outcome) can be reliably predicted by the predictor variables (school human resources, material resources and financial resources). This result agrees with Earthman and Lemasters (1998) who noted that instructional aids are essential prerequisites for achieving optimal teaching objectives. Another study by Uline (2000) also substantiate on this finding.

Even though all educational resources variables – school's material resources, $\beta = 0.232$, $t(450) = 6.578$, $p < 0.05$; financial resources, $\beta = 0.368$, $t(450) = 10.376$, $p < 0.05$; and human resources, $\beta = 0.355$, $t(450) = 9.051$, $p < 0.05$ – do influence significantly students' learning outcome, financial resources variables are the most influential in the model. This is however contrary to the finding of Buckley, Schender and Sharg (2004[a]) who argued that the single most important factor affecting student's achievement is teachers factor (i.e. human resources).

Summary of Findings

The major findings in this study are summarized thus:

i. The current trends of educational resources reveal cases where some essential school resources were reportedly not available in a number of schools.
ii. Some available school's resources were not put to optimal use in the schools.
iii. A large number of educational resources were inadequate for the schools, owing to large number of students' population.
iv. There were positive and moderate significant relationships among educational resources (human resources, financial resources and material resources) and students' learning outcome in Government.
v. Educational resources accounted for 62.1% of the observed variance in students' learning outcome in Government, as shown in the model.
vi. Of the three broad categories of educational resources in secondary schools, financial resources has the most potent influence on students' learning outcome in Government, $\beta = 0.368$, $t(450) = 10.376$, $p < 0.05$.

Conclusion

This paper hence concluded that the availability, usability and adequacy of various human resources, financial resources and material resources in secondary schools were but moderate predictors of students' learning outcome. It strongly encourages private and public school owners and administrators to ensure the availability, usability and adequacy of varieties of educational resources in the teaching-learning

processes. Consequently, this paper encourages government and school proprietors as well as relevant policy makers and researchers to investigate any other factors that wield substantial influence on students' learning outcome.

Recommendations

Based on the above, the following were recommended:

i. Principals should make sure that they update school owners on the status of various educational resources in their schools.
ii. All educational resources at the school's disposal should be optimized by putting them to productive use always.
iii. Accountability system in the school system ought to be strengthened such that school administrators are answerable for resources (especially money) that are given to them to manage for the school running.
iv. Whereas school owners have responsibility of provision, staff and students in schools should assume responsibilities for proper use and care of these school resources.
v. Teachers should improvise for instructional materials that are not readily available in their schools.
vi. There should be increased budgetary allocations to schools in terms of government grant, subsidy or subvention. This olive treatment could also be given by the government to assist ailing private schools.

References

Abdo, M. and Semela, T. 2010. Teachers of Poor Communities: The Tale of Instructional Media in Primary Schools of Gedeo Zone, Southern Ethiopia. Australian Journal of Teacher Education, 35 (7), 78 – 92.

Abdulkareem, A. Y., Ibitoye, S. A., Bamiduro J. and Onen, D. 2008. Availability of Physical Resources and School Effectiveness: The Case of Public Secondary Schools in Oye, Nigeria: in S. O. Owolabi, J. Ssempebwa and E. Lwanga (Eds) Kampala International University Research Digest Journal, Vol. 1, No 2, Nov. 2008

Adeogun, A. A. and Osifila, G. I. 2008. Relationship between Educational Resources and Students' Academic Performance in Lagos State

Nigeria, International Journal of Educational Management (IJEM), Vol. 5 & 6 (2008).

Aduwa-Ogiegbaen, S. O. and Imogie, A. I. 2005. Instructional Communication and Technology in Higher Education, Ibadan, Stirling Horden Publishers (Nig) Ltd.

Ajaja, O. P. and Kpangban, E. 2004. Resources Utilization in the Teaching of Integrated Science: In J. O. Obemeata & E. A. Okwilagwe (Eds) A Handbook on Evaluation Research, Pen Services: Ibadan.

Bassey, M. P. 2002. Availability of Resources for the Teaching of Science in Public Secondary Schools. A Case Study of Some Selected Secondary Schools in Alimosho Local Government, Lagos State.

Baviskar, S. N., Hartle, R. T. and Whitney, T. 2009. Essential Criteria to Characterise Constructivist Teaching: Derived from a Review of the Literature and Applied to Five Constructivist-Teaching Method Articles. International Journal of Science Education 31 (4), 541-550.

Buckley, J., Schneider, M. and Shang, Y. 2004a. LA USD School Facilities and Academic Performance. Washington, DC: National Clearinghouse for Educational Facilities. www.edfacilities.org/oubsf.

Buckley, J., Schneider, M. and Shang, Y. 2004b. The Effects of School Facility Quality on Teacher Retention in Urban School Districts. Washington, DC: National Clearinghouse for Educational Facilities. www.edfacilities.org/pubs/teacherretention.

Clouse, R. W and Nelson, H. E. 2000. School Reform, Constructed Learning and Educational Technology. Journal of Educational Technology Systems 28 (4), 289 - 303.

Durosaro, D. O. 1991. Resource Allocation and Utilisation for University Education in Nigeria: Trends and Issues: in E. G. Fagbamiye and D. O. Durosaro (Eds) Education and Productivity in Nigeria, A Publication of the Nigerian Association for Educational Administration and Planning.

Darling-Hammond, L. 2000. Teacher Quality and Student Achievement: A Review of State Policy Evidence. Journal of Education Policy Analysis, Vol. 8, Issue 1, pp 88-114

Earthman, G. I. and Lemasters, L. 1998. Where Children Learn: A Discussion of How a Facility Affects Learning. A Paper Presented

at the Annual Meeting of Virginia Educational Facility Planners.

Eggen, P. and Kauchak, D. 2004. Educational Psychology: Windows on Classroom, 3rd Edition.

Esiobu, G. O. 2005. Gender Issues in Science and Technology Education Development: In Science and Technology Education for Development, Uwowi, U.M.O. (Ed.). NERDC Press, Lagos, pp: 137-156.

Ezegbe, M. O. 1994. Social Studies Curriculum and Instruction: in Joof, G. W. and Amadi, H. C. (Eds) Social Studies in Schools: Teaching Methods, Techniques, Approaches and Perspectives. Onitsha, Nigeria, Outrite Publishers.

Famoroti, A. O. 2012. Teacher Motivation and Teacher Effectiveness As Correlates of Students' Learning Outcome in Government among Secondary Schools. Unpublished M. Ed Project, Institute of Education, University of Ibadan, Ibadan.

Federal Government of Nigeria, 2004. National Policy on Education, Lagos: NERDC Press, 4th edition.

Fred-Adegbulugbe, C. 2010. Appreciating HR's Strategic Role in Organizational Growth, Lagos: The Punch Newspaper, Wednesday, 23 June, 2010

Gray, A. 2010. Constructivist Teaching and Learning in the Classroom for Specific Purpose http://sasks.hoolboards.ca/research/instruction/

Ikerionwu, J. C. 2000. Importance of Aids and Resources in Classroom Teaching: In Oyeneyin, A. M. (ed) Perspectives of Classroom Teaching. Abuja: Martmonic Investment Ltd.

Isola, O. M. 2010. Effects of Standardized and Improvised Instructional Materials on Students' Academic Achievements in Secondary School Physics. Unpublished M. Ed Thesis, University of Ibadan, Ibadan.

Junaid, I. O. 2010. Comparative Evaluation of Two University Distance Learning Programmes in South-West, Nigeria. Institute of Education, University of Ibadan, Ibadan. Unpublished Ph D Thesis

Larson, T. D. A. 2001. Comparison of Fifth Grade Children Receiving Both Traditional and Technology Based Means of Instruction in

Social Studies. Unpublished Masters dissertation, Johnson Bible College Knoxville, USA.

Mezieobi, D. I. 2003. Effect of Instructional Materials on the Teaching of Social Studies In Secondary Schools in Edo State. Unpublished M.Ed Thesis, Delta State University, Abraka.

Moronfola, B. 2002. Effects of Instruction Resources on the Academic Achievements of Secondary School Students in Horin Local Government of Kwara State. Unpublished M.Ed Research Thesis.

Newhouse, C. P. 2002. Impact of ICT on Learning and Teaching. Perth: Specialist Education Services.

Obioha, N. E. 2006. STAN Physics for Senior Schools, Heinemann Educational Book Publishers, Ibadan.

Ogunleye, B. O. 2002. Towards the Optimal Utilization and Management of Resources for the Effective Teaching and Learning of Physics in Schools. Proceedings of the 41st Annual Conference of the Science Teachers' Association of Nigeria, (STAN), University of Lagos, Nigeria, pp 215-220.

Ogunmwonyi, I. G. 2009. Human Resources Management (HRM) As Catalyst for Good Corporate Governance. Human Resource Management Journal, Vol. 1 No 2, July-September, 2009, Lagos: CIPMN.

Osakwe, E and Itedjere, P. 1993. Social Studies for Tertiary Students in Nigeria. New Age Publishers, Enugu.

Oyo State Ministry of Finance. 2014. Budget of Consolidation: 2014 Fiscal Year Budgetary Allocation, Ibadan

Piaget, J. 1967. *Logique et Connaissance Scientifique*, Encyclopedia de la Pleiade.

Sewell, A. 2002. Constructivism and Students' Misconceptions. Australian Science Teachers' Journal. 48.2: 24-28.

Uline, C. 2000. "Decent Facilities" and Learning: in Thirman A. Milner Elementary School and Beyond. Teacher College Record, 102(2), 442-460.

UNESCO, 2006. World Conference on Arts Education: "Building Creative Capacities for the 21st Century". Document Prepared by of the Division of Arts and Cultural Enterprise of UNESCO Sector for Culture, 6-9 March 2006, Lisbon, Portugal.

Von Glaser Field, E. 2001. Constructivism Reconstructed: A Reply to Such Thing. Science and Education 1: 379 - 384.