

## **Physical Resource Management for Senior Secondary School Effectiveness in Biu Education Zone of Borno State, Nigeria**

**Abdulkadir Mohammed Saidu**

[abdulkadirmohd@yahoo.com](mailto:abdulkadirmohd@yahoo.com)

<sup>1 and 3</sup> Department of Education,

Faculty of Education, University of Maiduguri, Nigeria

**Machar Samuel**

Department of Education,

Bayaro University Kano, Nigeria

[samuel.machar2@gmail.com](mailto:samuel.machar2@gmail.com)

&

**Musa Mallum**

[musamallum@gmail.com](mailto:musamallum@gmail.com)

### ***Abstract***

*This study determines the Physical Resource Management for Senior Secondary School Effectiveness in Biu Education Zone of Borno State, Nigeria. Correlation and survey research design were used for this study. Three objectives, two research questions and one hypothesis were used in the study. Correlation research design was used to determine the relationship between physical resources management and school effectiveness while survey was used to ascertain the availability in senior secondary school in Biu education zone. Correlation design according to Cohen and Manion, (2009) aimed at determining the nature, degree and direction of relationship between variables or using these relationships to make predictions. The population of this study comprised eighteen (18) senior secondary schools in Biu Education zone with 2781 as population. Simple random sampling was used in drawing the sample of ten (10) senior secondary schools and 326 teachers. Simple random sampling according to Johnson and Christensen (2008) is a sample drawn by a procedure which every member of the population has an equal chance to be represented in the study. Self-developed Checklist titled: Physical Resource Management (PRM) was used as instrument for data collection. The Checklist consisted of four (10) items which sought information on the Availability and utilization of physical resource where the respondents ticked the options which were scored as follows: Adequately Available (AA); Available (A); Moderately Available (MA); Not Available (NA). However, in determining the validity and reliability of the instrument, experts in Educational Measurement and Evaluation, Department of Education, Faculty of Education- University of Maiduguri validated the instruments. Cronbach's Alpha was adopted to measure the reliability of the instrument which stood at 0.93. The data was analyzed using simple percentage and Pearson Product moment correlation coefficient. Based on the above findings the researchers*

*conclude that physical resources are the major predictor of senior secondary school effectiveness. This implies that physical resources play a significant roles in determined the senior secondary school effectiveness. The researchers also recommended that Non-Governmental organization should complement the efforts of State Government in the provision of physical resources in senior secondary school as it found to influences it effectiveness in Biu Education Zone, Borno State*

**Keywords:** Physical Resources Management, School Effectiveness, Availability and Utilization.

### **Introduction**

Resources are essential to get our work done. Everything that we see and touch is a resource, which perhaps we could use. The management of resources by school head or Chief Executive Officers requires considerable skill. Physical resources are the raw materials which are used to achieve an objective or goal in an organization. They are resources that we can feel, move, smell and see. These are normal resources that are made by man and help us to do our daily activities much quicker and easier.

The physical resources of an organization include all the tangible resources owned and used by a company such as land, manufacturing equipment and office equipment. Information technology and its attendant equipment, computers, networks, servers and others, are included in the category of physical resources. According to Irfran (2014), physical resources are resources that are available in school in the form of buildings and other machineries for school effectiveness. Thus, physical resources are all the structures found in a school system apart from human beings, they are facilities which include all instructional and non-instructional.

According to Adeofun and Osifilia, (2008), physical resources include laboratories, libraries, classrooms and a host of other physical infrastructure, while material resources include textbooks, charts and maps among others for school effectiveness. Modern school put emphasis on the availability, adequacy and management of facilities as classrooms, workshops/laboratories, computers, good water source/supply, toilet facilities, functional libraries, transportation, and communication systems among others. All these facilities are required in appropriate quantity and quality for schools to operate effectively and efficiently (Mbakwem and Asiabaka 2007).

The major impetus for school effectiveness in secondary schools is to ensure effective used of physical resources. Morrison, (2004) suggests characteristics of effective secondary schools to include good leadership by senior and middle managers, clear aims and objectives that were translated into classroom practice, an emphasis on high academic standards, a relevant but orderly and firm classroom atmosphere, positive relationships with students, encouraging them to express their view, a well-planned curriculum and concern for students' overall well-being, with

effective pastoral systems.

School effectiveness in senior secondary in Biu education zone is rapidly tailored towards meeting set goals. This is why the success of any school program largely depends on the availability and utilization of physical resources. Research has also shown that physical resources in the secondary school are the determinant of all activities that take place in the school.

Over the years as a trained teachers and practice teacher, provision and maintenance of effective secondary school possess more challenges for the principals in the public schools especially in Biu Education Zone. These were attributed to the major goal of the school which is to provide conducive learning environment for school effectiveness. The Zone has 18 senior secondary schools and are characterized with qualified principals and productive teachers. This has resulted in the geometrical population explosion of students hence the need to study the management of physical resources for school effectiveness in the zone.

The major concern of the Teaching Services Board, the Ministry of Education, Education Managers and other related stakeholders is to see how to provide and maintain effectiveness of school. This might not be possible if physical resources are not available, utilized and properly managed in the school. Physical resources in any school are paramount for such school to function effectively and efficiently. The principal's ability to effectively management the school facilities would go a long way in provides effective school activities. The principal must understand that the physical resources are the critical resources for school effectiveness and that the effectiveness of any school is defined by the principal management of physical resources (Oyesola, 2007).

In educational institutions, physical resource constitutes essential inputs, which create favorable learning environment, facilitate interaction and enhance achievement of educational objectives for school effectiveness. The principal as the manager of the school organization therefore has the onerous task of mobilizing available physical resource to ensure a proper running of the school. Uko (2015) stated that the principal is saddled with the responsibilities to managed school furniture, laboratories, school library, Classrooms, Toilets and toilet Facilities Water/Electricity, Laboratory equipment and Computer room.

The researchers have observed the unhealthy nature of overcrowded and un-conducive classrooms, unsightly and unhygienic toilets, inadequate laboratories and workshops. It seems there are population explosion, insufficient desks, overcrowded classroom and inadequate learning materials in senior secondary schools in the zone. There has been public outcry and growing concern about school effectiveness generally. Lack of school effectiveness can be attributed to many factors such as unqualified teachers, insufficient instructional facilities in public schools, unavailability of laboratories, libraries, science resource corners and dilapidated structures (Uko & Ayuk, 2014).

In recent times the availability of some physical resources such as computer

laboratory, science laboratory, play facilities like badminton, handball, and table tennis have shown tremendous improvement in school effectiveness in senior secondary schools in Biu zone. However, to what extent are these facilities being managed in the schools? In essence, school effectiveness would not be meaningful and functional if required physical resources are not available, utilized and properly managed (Uko & Ayuk, 2014). A good number of studies have focused mainly on infrastructural facilities such as buildings, classrooms, chairs, tables (**Amadi & Ezeugo 2019**), but neglected other school facilities as well as management of the physical resources in the zone. It is important that appropriate, adequate, desirable and acceptable physical resources be provided for school effectiveness.

Borno state ministry of education has renovated dilapidated classrooms, supply desks and built more science laboratories in senior secondary school in Biu education zone. However, management of these physical resources is the responsibilities of the school managers. Hence the need to study the problems of physical resource management in senior secondary schools cannot be over-emphasized. It is against this background that this study determined physical resource management for senior secondary school effectiveness in Biu education zone of Borno state, Nigeria.

### **Objective of the Study**

The objectives of the study were to determine the:

1. availability of physical resources for senior secondary school effectiveness in Biu Education zone
2. extent of utilization of physical resources for senior secondary school effectiveness in Biu Education zone
3. relationship between utilization of Physical resource and senior secondary school effectiveness in Biu Education zone

### **Research Questions**

The following research questions were answered

1. What is the availability level of physical resources for senior secondary school effectiveness in Biu Education zone?
2. What is the extent of utilizations of physical resources for senior secondary school effectiveness in Biu Education zone?

### **Hypotheses**

The following null hypothesis was tested at 0.05 level of significance;

**H<sub>0</sub>:** There is no significant relationship between utilization of physical resource and senior secondary school effectiveness in Biu Education zone

### **Literature Review**

The management of available and utilization of physical facilities have been

severally emphasized in literatures. This is because the level of success of most schools' programs is greatly depends on the degree of availability and utilization of up-to-date physical facilities. Physical facilities include classrooms, auditoriums, administrative block, libraries, laboratories, workshops, play grounds, assembly halls, and special rooms like clinics, staff quarters, students' hostels, kitchen, cafeteria, and toilet amongst others. The availability of these facilities are potent factors to school effectiveness. Ezekwesile (2007), maintained that both students and teachers need these facilities for teaching and learning to take place. Saba (2007), opined that, school physical facilities are pillars for school effectiveness.

Alabi (2020) conducted research on the Assessment of Instructional Materials for Teaching and Learning of Business Studies in Lagos State Education Districts. The findings of the study revealed that, physical facilities could be considered as the entire scope of physical infrastructures such as classroom, furniture, library, laboratory/studio, model offices, and staff offices amongst others. These Resources are very important because of their role in the achievement of educational objectives and school effectiveness. The findings further indicated that, the extent of school effectiveness is directly proportional to the availability and utilization of physical resources.

The availability of physical facilities in any educational institutions enhances the effectiveness of such schools as they are the basic resources that bring about good academic performance in the students. Momoh (2010) conducted a research on the effects of instructional resources on students' performance in West Africa School Certificate Examinations (WASCE). The achievements of students in WASCE were related to the resources available for teaching. He added that, availability of material resources has a significant effect on student's achievement since they facilitate the learning of abstract concepts and ideas and discourage rote-learning. Adeogun (2001) and Amadi and Ezeugo (2019) discovered a very strong positive significant relationship between availability of physical resources and academic performance.

The utilization of resources in education brings about fruitful learning outcomes since resources stimulate students learning as well as motivating them. A common way to examine the utilization of education resources is to analyze school expenditure. This is because school expenditures constitute the bulk of all resources devoted to schooling and they are tractable instruments of education policy (Meghir,2002). A school should adequately utilize the available facilities to advance learning opportunities for school effectiveness. It is the responsibility of the head of the school to ensure that there is adequate classroom space to enable teaching learning process to take place and should ensure that all facilities are efficiently and effectively utilized so as to achieve educational goals and improve learning outcomes.

Amadi and Ezeugo (2019) conducted a study on Physical Resources Availability and the Academic Performance of Students in the Universal Basic Education Scheme, Rivers State. The study analysed physical resources availability

and the academic performance of students in the UBE scheme in Rivers State. The findings indicated they were available physical resources in UBE schools (public junior secondary schools). Also, the result shows that there is significant difference between the perception of male and female teachers on the available physical resources in UBE schools in Rivers State. Furthermore, they observed that, student's utilization of the available physical resources in UBE schools influence their academic performance. Alabi (2020) maintained that, utilization of physical resources is a determinant of school effectiveness. Physical resources have been identified as a crucial component of education resource and have a vital role to play in the attainment of internal effectiveness of schools.

### **Methodology**

Correlation and survey research design were used for this study. Correlation research design was used to determine the relationship between physical resources management and school effectiveness while survey was used to ascertain the availability in senior secondary school in Biu education zone. Correlation design according to Cohen and Manion, (2009) aimed at determining the nature, degree and direction of relationship between variables or using these relationships to make predictions. The population of this study comprised eighteen (18) senior secondary schools in Biu Education zone with 2781 as population. Simple random sampling was used in drawing the sample of ten (10) senior secondary schools and 326 teachers. Simple random sampling according to Johnson and Christensen (2008) is a sample drawn by a procedure which every member of the population has an equal chance to be represented in the study. Self-developed Checklist titled: Physical Resource Management (PRM) was used as instrument for data collection. The Checklist consisted of four (10) items which sought information on the Availability and utilization of physical resource where the respondents ticked the options which were scored as follows: Adequately Available (AA); Available (A); Moderately Available (MA); Not Available (NA). However, in determining the validity and reliability of the instrument, experts in Educational Measurement and Evaluation, Department of Education, Faculty of Education- University of Maiduguri validated the instruments. Cronbach's Alpha was adopted to measure the reliability of the instrument which stood at 0.93. The data was analyzed using simple percentage and Pearson Product moment correlation coefficient.

### **Results:**

**Research Question 1:** What is the availability level of physical resources for senior secondary school effectiveness in Biu Education zone?



**Table1:** Percentages and Frequency level of availability of physical resources for senior secondary school effectiveness in Biu Education zone.

ITEMS	N	AA	AV	MA	NA	Total
Classrooms	10	9(90)	1(10)	0	0	100%
Furniture.	10	9(90)	1(10)	0	0	100%
Chemistry laboratory	10	8(80)	1(10)	1	0	100%
Biology laboratory,	10	1(10)	8(80)	1	0	100%
Physics laboratory,	10	1(10)	8(80)	1	0	100%
School library	10	2(20)	7(70)	10	0	100%
Toilets Facilities	10	1(10)	1(10)	70	1	100%
Water supply	10	1(10)	7(70)	10	1	100%
Electricity supply	10	6(60)	2(20)	10	10	100%
Computer	10	1(10)	6(60)	2(20)	1(10)	100%
<b>Grand Total</b>	<b>10</b>	<b>39%</b>	<b>42%</b>	<b>15%</b>	<b>4%</b>	<b>100%</b>

**Source:** Field Survey, 2021

Table 1 revealed that 39% of the physical resources are adequately available, 42% are available and 15% were moderately available. The table further revealed that only four (4%) of the physical resources were not available. This showed that majority of the school in Biu Education Zone especially public secondary school have adequate physical resources.

**Research Question 2:** What is the extent of utilizations of physical resources for secondary school effectiveness in Biu Education zone?

**Table2:** Percentages and Frequency level of utilizations of physical resources for secondary school effectiveness in Biu Education zone.

ITEMS	N	HU	MU	NU	Total%
Classrooms	10	5(50)	2(20)	3(30)	100%
Furniture.	10	4(40)	4(40)	2(30)	100%
Chemistry laboratory	10	3(30)	6(60)	1(10)	100%
Biology laboratory,	10	7(70)	2(20)	1(10)	100%
Physics laboratory,	10	3(30)	6(60)	1(10)	100%
School library	10	2(20)	7(70)	1(10)	100%
Toilets Facilities	10	3(30)	4(40)	3(30)	100%
Water supply	10	2(20)	8(80)	0	100%
Electricity supply	10	1(10)	8(80)	1(10)	100%
Computer	10	9(90)	1(10)	0	100%
<b>Grand Total</b>	<b>10</b>	<b>39%</b>	<b>48%</b>	<b>13%</b>	<b>100%</b>

**Source:** (Field Survey, 2021) Key: Highly Utilized (HU), Moderately Utilized (MU), Not Utilized (NU)

Table 2 revealed that 39% of the respondents highly utilized the physical resources for school effectiveness, 48% moderately utilized it and 13% of the respondents don't utilize the resources for school effectiveness. This showed that majority of the respondents in Biu Education Zone particularly those in public secondary school used physical resources for school effectiveness.

**Hypothesis One:** There is no significant relationship between utilization of physical resource and senior secondary school effectiveness in Biu Education zone

**Table3:** Correlation between utilization of physical resource and senior secondary school effectiveness in Biu Education zone, Borno State, Nigeria

Variable	N	Mean	SD	r- value	P-value	Decision	Remark
Physical Resource	326	18.05	4.31	0.706	0.005	Sig	Reject H <sub>01</sub>
Secondary School Effectiveness	326	60.99	10.48				

\*\* . Correlation is significant at the 0.05 level.

Source: Field Survey, 2021

Table 3 above revealed that the correlation coefficient (r) obtained was 0.706 with p- value of 0.005 at 0.05 level of significance. Since the r – value is greater than 0.05, the null hypothesis is rejected. This means that, there is significant relationship between physical resource and secondary school effectiveness of senior secondary school students' in Biu Education Zone, Borno state. The findings suggested that, physical resource is determinant of secondary school effectiveness of senior secondary school students' in Biu Education Zone, Borno state.

### Discussion of Findings

Research question one (1) determined the availability level of physical resources for senior secondary school effectiveness in Biu Education zone Borno State. The results showed that majority of the school has physical resources. This finding was in line with study conducted by Water Alabi (2020) The findings further indicated that, the extent of school effectiveness is directly proportional to the availability and utilization of physical resources. Momoh (2020) also revealed that availability of material resources has a significant effect on student's achievement since they facilitate the learning of abstract concepts and ideas and discourage rote-learning. Adeogun (2001) and Amadi and Ezeugo (2019) believed that there's a very strong positive significant relationship between availability of physical resources and academic performance.

Research question two (2) determined the extent of utilizations of physical resources for secondary school effectiveness in Biu Education zone. The results



showed that school managers were of the opinion that there was adequate maintenance of healthy environments in public secondary schools. Amadi and Ezeugo (2019) study indicated that they are available physical resources in UBE schools and are fully utilized by the personnel (public junior secondary schools). This study was in consonant with Bender (2020) who opined that physical resources must be disinfected and keep clean surroundings as well as classrooms especially with water and sanitation at least once a day, particularly surfaces that are touched by many people.

Hypothesis One; There is no significant relationship between utilization of physical resource and senior secondary school effectiveness in Biu Education zone. The results showed that there was significant relationship between physical resources and senior secondary school effectiveness in Biu Education zone, Borno State. This finding was in line with **Amadi and Ezeugo (2019)** discovered a very strong positive significant relationship between availability of physical resources and academic performance. This implies that availability of physical resources strongly influences senior secondary school effectiveness in Biu Education zone

### **Conclusion**

Based on the above findings the researchers conclude that physical resources are the major predictor of senior secondary school effectiveness. This implies that physical resources play a significant roles in determined the senior secondary school effectiveness. Non-Governmental organization should complement the efforts of State Government in the provision of physical resources in senior secondary school as it found to influences it effectiveness in Biu Education Zone, Borno State

### **Recommendations**

Based on the findings, the researchers made the following recommendations:

1. Government should provide more physical resources in senior secondary school as it found to influences it effectiveness in Biu Education Zone, Borno State.
2. Schools administrators should encourage the use of physical resources in senior secondary school as it found to influences it effectiveness in Biu Education Zone, Borno State.
3. Non-Governmental organization should complement the efforts of State Government in the provision of physical resources in senior secondary school as it found to influences it effectiveness in Biu Education Zone, Borno State.

## References

- Alabi A. J. (2020) Assessing the Instructional Materials for Teaching and Learning of Business Studies in Lagos State Education Districts. *Journal of Research in Educational Management and Business Studies (JOREMBS)* 5(2) 275-290
- Adeogun, A. A. & Osifila, G. (2008). Relationship between educational resources and students' academic performance in Lagos State Nigeria. *International Journal of Education Management*, 5(6), 34-56
- Amadi E & Ezeugo C R (2019) Physical Resources Availability and the Academic Performance of Students in the Universal Basic Education Scheme, Rivers State *International Journal of Innovative Development and Policy Studies* 7(1):13-23
- Oyesola, G. O (2007) Planning Education Building and Facilities. *Alphabetic list of Jour articles. Ilorin: <http://www.Ijeunilorin.net>. preparing schools and school system for the 21<sup>st</sup> century.*
- Uko, E. S. (2015). Administrators' Resource Management Practices and Teachers' Job Performance in Secondary Schools' in Eket Education Zone of Akwa Ibom State, Nigeria *International Journal of Innovative Education Research*, vol. 3(2).
- Uko, E. S & Ayuk, A. A (2014). The malaise that maligns the attainment of educational goals by the African child. The Nigerian experience. *International Journal of education and research*, 103. carrington street. Adelaide, Australia.

## **Resources Management for School Effectiveness in the Era of Covid-19 Pandemic**

**ANYANWU Oluwakemi Mogelola**

Department of Educational Management and Business Studies

Federal University Oye-Ekiti, Ekiti State, Nigeria

e-mail: [oluwakemi.anyanwu@fuoye.edu.ng](mailto:oluwakemi.anyanwu@fuoye.edu.ng)

+2348034988722

### **Abstract**

*The widespread of COVID-19 pandemic have been a huge challenge to education systems all across the globe. This perspective offers guidance to teachers, institutional heads, and officials on addressing the crisis and continuing effective of teaching and learning process. Fragment of the essential pre-requisites needed to be put in place in the school system for the actualization of the educational aim and purposes entails sufficient endowment of resources, supreme utilization and appropriate management of education resources to avoid wastages and improve the quality of the teaching - learning process the pandemic era. In ramping up capacity to teach during this period, schools and colleges management have to upgrade their educational resource in other to deliver effective teaching and learning, such as taking advantage of asynchronous learning, which works best in digital formats. The study used descriptive research method to gather information from one hundred teachers in secondary schools in Ado Ekiti with the use of structure questionnaire. The result of the findings revealed that materials/ physical resources, financial resources, time resources, human resources and communication technology resources are the major resources that affect secondary school effectiveness during COVID-19 crises and majority of the schools had to stop teaching and learning because they are not well equipped with ICT facilities. The result further showed that there is significant relationship between resources management and secondary schools' effectiveness during COVID-19 pandemic in Nigeria in which the improvement in resources management level will also improve schooling effectiveness during crisis. This paper therefore suggested that government should provide relief funds to equip and resource schools for improved teaching and learning methods for effective teaching and learning during pandemic.*

**Keywords: Resource Management, School effectiveness, COVID-19 Pandemic, Teaching, Learning.**

### **Introduction**

The index case of COVID-19 in Nigeria was confirmed in February 2020. Subsequent developments led to the indefinite closure of all schools and learning services in Nigeria in March 2020. Schools are not only where learning take place;

they equally provide communal safety, sustenance, vigor facilities and passionate livelihood for the maximum destitute. As anticipated, the lengthier schools are locked, the further the education is forfeiture, the more the inequalities exacerbate, the unfathomable the education is catastrophe and the countless the acquaintance of the most vulnerable children to risk of exploitation. In addition, the pandemic's health risk to learners and teachers is very high and may be devastating without effective risk-mitigation measures. Impromptu confrontation and extensive terminations of schools likewise pose extraordinary defy to education of Nigeria sector. In the system, about 80 million broods, adolescence, and mature learners are dispossessed contact to schools and have very inadequate substitute education chances for minimum of an estimated period of three-month (UNESCO, 2020).

Institutions have been closed down by various governments in order to prevent direct teaching for the students, which enabled them to shift to online learning and virtual teaching which led to new ideals and resources to make schooling effective. This brought about implementing and managing educational resource that can commensurate effective teaching and learning regardless of the situation of the environment due to the pandemic. Educational resource management in this context refers to allocation and utilization of the available organization resources to achieve the organizational goals and objectives. According to Alagboye (2004), resource management is the judicious use and upkeep of social, physical, monetary and additional accessible capitals for the best attainments scholastic aims and purposes. Also, Adetoro (2002) posited it as the capable and actual growth of organizational resources when required. Banjoko (2002) observed as the actual achievement, consumption and conservation of the provisions required in the scholastic structure. Considering the views of different authors, one can conclude that resource management is concerned with the procurement, acquisition, utilization and maintenance of teaching and learning equipment and directors services of instructive establishments through teacher's active physical activity. In Fashiku (2008); Adetoro (2009) and Akpan *et al.* (2012); these include fiscal, physical and data incomes in learning organizations. These incomes are vital involvements needed to be properly accomplished by the leaders of organizations through their competent teachers. According to Peretomode (2012), school resource management effectiveness includes categorized established events such as administrator's preparation, consolidating and prominence to enhance the usage of the accessible resources for achievement of desired outcome in the most effective way.

### **COVID-19 as a threat to Educational Resource Management**

The outbreak of the COVID-19 poses threats on the school resource management in Nigeria. The following challenges are encountered in the bid to manage continuous, effective and efficient education during the COVID-19 pandemic.

- 1. Learning and development have been interrupted and disrupted for millions of students.** There will be need for active reaction for analytic

assessment for respective child and also to invent a strategy for the disruptions.

2. *Poor state of infrastructure, equipment, facilities and learning resources does not support educational activities during the pandemic.* In an organization, the achievement and disappointments has a lot on the substructure accessibility, tools, and amenities for the realization of scholastic aims and purposes for maintainable growth. Commenting on the role of infrastructure in institution (Onyeukwu and Nwanouruo, 2006) noted that, the absence or insufficient of infrastructures in the institutions constitutes a real source of worry. The act of pairing students per tools/equipment at this era might be dangerous in order to curb spread of the virus, thus, there will be need for more tools/equipment for each student to have access to learning materials at the same time. To achieve this might be difficult for many schools management and limit effectiveness of teaching and learning.
3. *Inadequate Funding:* For any organization to achieve desired sustainable growth and development, finance is a vital instrument. In Nigeria, as a revenues of physical activity and achieving excellence schooling and instruction for justifiable nationwide improvement funding of education, the country appears to have been stressed to meet the apportionment of 26 percent acclaimed by the United Nations Educational, Scientific and Cultural Organization. The pandemic era need special attention regarding funding for the management to provide special resource to guide student against contacting the virus. Materials such as hand sanitizers, face mask, more building facilities, tools and equipment in order to ensure social distancing in class rooms, etc were required. Also, the implementation of school on air by some schools, are not very effective in rural areas and some part of urban area in the country since not all student have access to devices used for online classroom.
4. *Loss of instructional time to teach students effectively:* Time management is a very crucial resource to be manage during classroom lectures, the pandemic had limit the extent to which teacher can go so as to express his/herself for better understanding of the student, especially when the teaching has to be online. Teacher effectiveness will be limited due to time constraint leading to low performance of such class.
5. *Lack of Human Resources:* One of the rules to curb COVID-19 is social distancing, in a class of more than 30 students, there will be need to reduce the number per class in order to space the student, this will increase the number of classes and in turns requires more workforce so as to achieve effective educational system. It is also applicable for professional conferences and seminars organized for school. ([www.humanresourceexcellence.com](http://www.humanresourceexcellence.com)).

6. Poor state Information and Communication Technology (ICT) facilities in schools: One of the most critical opportunity gaps is the uneven access to the devices and internet access critical to learning online. During the pandemic, it was virtually unbearable for some students to study. Scholars in rural regions or destitute families were thwarted due to privation of contact to technology or dependable internet entrée. Due to the [COVID-19 pandemic](#), many schools began conducting classes via [video telephony](#) software such as [zoom](#), google classroom, etc.
7. The pandemic has exacerbated well-documented opportunity gaps that put low-income students at a disadvantage relative to their better-off peers.
8. The pandemic has exacerbated the limitations of standardized tests, which reward a narrow set of skills and more affluent students who have access to specialized instruction.

Schools in Nigeria will have to manage their resources in other to carry out effective teaching since the existence of COVID-19 in the country has made the country incurred losses, financially. Therefore, the support from the government might not be sufficient for school management and parents for their students/children to have effective classes at their fingertips. On this note, this paper tends to assess the resources management for school effectiveness in the era of COVID-19 pandemic in Nigeria secondary schools.

### **Purpose of the study**

The purpose of the study is to;

1. examine the factors of resources management affecting school effectiveness during COVID-19 pandemic among secondary school students in Nigeria
2. examine the impact of ICT resources on school effectiveness during COVID-19 pandemic among secondary school students in Nigeria
3. find the relationship between resources management and secondary schools effectiveness during COVID-19 pandemic in Nigeria.

### **Research questions**

The following research questions were raised for the purpose of the study

1. What are the factors of resources management affecting school effectiveness during COVID-19 pandemic among secondary school students in Nigeria?
2. What is the impact of ICT resources on school effectiveness during COVID-19 pandemic among secondary school students in Nigeria?

### **Research Hypothesis**

H<sub>0</sub>: There is no significant relationship between relationship between resources management and secondary schools' effectiveness during COVID-19 pandemic in Nigeria.



## **Literature Review**

### **Educational Resource**

Education resources comprises school teachers, community members, tangible substances, sample, chalkboard materials, school structures and other fundamental materials like pencils, pens, exercise books etc. which enhances smooth learning for students (NOUN, 2009). Blunt (1990) opined that, accessibility of these resources alone cannot surety operative enactment of school, nevertheless their competence and operational consumption. According to Agabi (2010), government assets on educational ventures in Nigeria are insufficient and unsatisfactory as emphasized by the occurrence of industrial actions.

### **Classification of Education Resources**

NOUN (2009) categorized the following as:

(a) **Physical Resources:** These include visible resources in an institution such as building, machineries, raw materials and automobiles while the physical resources may not be the same in all organization. Physical resources are the classrooms, offices of staff, means of transportation, health centers, archive and workshop.

(b) **Financial Resources:** Funds required for sufficient schools management such as payment of staff salaries and school maintenance are essential for facilities needed for operative routine.

(c) **Time Resources:** Is extraordinary as infrequent resources to manhood (Adedeji, 1998). Time is managed through using school time table.

(d) **Human Resources:** These include accountability for planning, inaugurating, synchronizing, supervisory, functioning and maintaining other resources.

(e) **Information and Communication Technology (ICT) Resources:** in the administration of school, ICT remains the worldwide scheme for moveable communiqué (GSM) cell phone, intercom, television, overhead and film projector, internet/radio, cable, etc.

### **Relevancies of ICT Resources in School Administration are as follows;**

- i. The use of ICT helps improve the quality of education: ICT can enhance the quality of education in several ways for example, increasing learner motivation and engagement by facilitating the acquirement of rudimentary services and by enhancing training of instructor.
- ii. Sharing knowledge: Students can use ICT to present their work in a highly professional format. Documents can be generated and exhibit slideshows on the things they have learned. Also relate ideas with colleagues and the teachers and even via email with people all around the globe.
- iii. ICT helps prepare individuals for the workplace: One of the most commonly cited reasons for using ICT in the classroom has been to better prepare the current generation of learners for an office where ICT, especially as

computers, the Internet and correlated technologies, are becoming more and more universal.

- iv. Access to remote learning resources: With the Internet and the World Wide Web, a wealth of learning materials in almost every subject and in a variety of media can now be accessed from anywhere regardless of time number of people.
- v. Processing knowledge: Students and teachers can use ICT as part of a creative process where they have to consider more carefully the information which they have about a given subject.

(f) Community Resources: These are human and non- human materials that can be found around the teachers and learners environments (Omosowo, Ogunlade and Oyedeji, 2012). Schools should ensure learners visit the fixed resources in the community to enable them have preview of the things they were taught.

**Relevancies of Community Resources in School Administration are;**

- (i) Leveraging community resources and local partnerships supports high quality academic and enrichment opportunities by broadening the experiences that may be typically offered to students and by expanding access to local expertise.
- (ii) Students can be assisted to achieve desired goals in the community based activities in such a way that will be more attractive than traditional textbooks and assignments.
- (iii) Community resources can help teachers teach effectively by providing motivation to students, helping students achieve learning objectives and exposing students to positive role models and real life situations. This permits the students linking between the classroom and the society.
- (iv) Synergy and integration effort is cost effective and fosters a sense of belongings, security with the community thus improving school - community relationship.

(g) Fundamental /Supporting Resources: These have to do with all that enhance effective administrators work daily such as almanacs, periodicals, bulletins, position books, year planner, disposable items, cabinets, files, etc. Supporting resources like electricity, which generates power for most machines and electronics, water, refrigerator, fans, cars, etc. are also dispensation for input and output and in the transfer of both the material and human resources from one place to another.

**Efforts Made to Promote School Effectiveness in the Era of COVID 19 Pandemic**

1. **The Use of asynchronous learning:** Just as institutions take steps to inform, reassure and maintain contact with students and parents, many had ramp up

their ability to teach remotely. This emergency is not the time to put into effect complex institutional plans for distance learning that were meant to be implemented over monthly or yearly. In asynchronous learning, participants do not have to communicate concurrently. It makes teachers to be flexible in the preparation of teaching materials and also enables scholars to manipulate the difficulties of home-based and learning. Teachers are not mandated to deliver material at a fixed time: it is mailed online for students to assess through wikis, blogs, and e-mail to suit their schedules.

2. **The Use of Audiovisuals:** Usually, video lessons are short, effective and simple to organize within 5-10 minutes. Huge virtual courses like Future-Learn can be logged in to the Future-Learn course subject zones.
3. **Use of Virtual Environment:** There are some challenges of distance learning. There were adaptation of mechanical and professional internship patterns and work-based learning centres in some nations e.g. Brazil, Costa Rica, Kenya, Philippines, and South Sudan (Ilo, 2020).
4. **Provision of Educational Resource:** In some nations, students with disabilities are having challenges of adequate facilities such as internet accessibility, materials and prompt monitoring the online programmes. There is need for enhancement of features accessibility, like audio description, sign semantic, videocassette, basic manuscript, delivery of helpful strategies and sensible lodgings. (Janet and Wongani, 2020).
5. **Supports for teachers' needs:** When teachers were mandatory to deliver face-to-face teaching for the children of indispensable personnel and vulnerable children, their physical health was at danger. Teachers all over the sphere were basically unprepared to sustenance continuity of learning and acclimatize to new teaching procedures. Only 64 per cent of primary and 50 per cent of secondary teachers in sub-Saharan Africa have acknowledged least preparation, which often as nothing to do with rudimentary digital aids. (ITFTE, 2020). Even in contexts with adequate infrastructure and connectivity, many educators lack the most basic ICT skills, meaning they will likely struggle with their own ongoing professional development, let alone with facilitating quality distance learning. (UNESCO, 2020). The COVID-19 crisis has highlighted that both initial and in-service teacher education are in need of reform to better train teachers in new methods of education delivery.
6. **Re-opening of Schools:** The Federal government had put in place guidelines for the safe reopening of schools and learning facilities after the COVID-19 pandemic outline actions, measures, and requirements needed for:
  - a. Ensuring adequate preparedness of schools and learning facilities for reopening and resumption of academic and other ancillary activities without

- placing the health, safety, and security of learners, teachers, administrators and other education personnel at risk;
- b. Systematic, phased, safe reopening that factors resource availability to meet basic requirements and differentials in COVID-19 effect (e.g., fumigation and disinfection of schools; provision of learning material;
  - c. Continued safe and quality teaching and learning activities by learners, teachers, and administrators that meet prescribed standards through remote and e-learning platforms with adequate safeguarding of their health, safety and security during school shutdown period;
  - d. Entrenching and institutionalizing good practices in health, safety, and security in the nation's education sector in the long term to strengthen systems and make them resilient against future similar occurrences.

### **Methodology**

The research design for this study is descriptive survey research design. The population of this study consists of secondary school teachers in Ado Ekiti in Ekiti state. The study was carried out in secondary schools in Ekiti state, Nigeria. A multistage random sampling technique was employed in data collection. Five public secondary schools were randomly selected. From each school, twenty teachers were randomly selected making a total of one hundred (100) respondents. Data were collected with the use of structured questionnaire. A total of 100 questionnaires were filled and returned. Data were analyzed with the use of descriptive and inferential statistical tools. Descriptive statistics was used to analyze the response of the respondents and Pearson Moment Correlation Coefficient was used to test the significant relationship between the variables at 0.05 level of significance.

### **Results**

**Research question 1:** What are the factors of resources management affecting school effectiveness during COVID-19 pandemic among secondary school students in Nigeria?

**Table 1:** Factors of resources management affecting school effectiveness during COVID -19 pandemic

S/N	Items	SA		A		D		SD	
		F	%	F	%	F	%	F	%
1	Materials/physical resources are the major determinant of school effectiveness during COVID-19 pandemic.	27	27.0	43	43.0	23	23.0	7	7.0
2	Lack of financial resources affected school effectiveness during COVID-19 pandemic.	41	41.0	54	54.0	4	4.0	1	1.0
3	Proper allocation of time resources improves school effectiveness during COVID-19 pandemic.	29	29.0	48	48.0	16	16.0	7	7.0
4	The contribution of human resources is one of the main attributes that improve school effectiveness during COVID-19 pandemic.	40	40.0	57	57.0	3	3.0	0	0.0
5	The availability of information and communication technology resources greatly contributed to school effectiveness during COVID-19 pandemic.	43	43.0	56	56.0	1	1.0	0	0.0
6	The input from community resources adds to the school effectiveness during COVID-19 pandemic.	16	16.0	37	37.0	28	28.0	19	19.0
7	Fundamental/supportive resources from the government are signification to school effectiveness during COVID-19 pandemic.	23	23.0	36	36.0	39	39.0	2	2.0

Table 1 shows that higher percentage 27 (27.0%)% of the respondents strongly agreed that materials/physical resources are the major determinant of school effectiveness during COVID-19 pandemic while 43% agreed, 23% disagreed and 7% strongly disagreed. Majority of the respondents (54%) agreed that lack of financial resources affected school effectiveness during COVID-19 pandemic, 41% strongly agreed and others disagreed. The respondents agreed that proper allocation of time resources improves school effectiveness during COVID-19 pandemic as 48% of the total respondents agreed to the opinion. 40% of the respondents strongly agreed that contributions of human resource is one of the main attributes that improve school effectiveness during COVID-19 pandemic, 29% strongly agreed. Almost all the respondents strongly agreed (40%) and agreed (57%) that the contributions of human resources is one of the main attributes that improve school

effectiveness during COVID-19 pandemic. All the respondents strongly agreed that availability of information and communication technology resources greatly contributed to school effectiveness during COVID-19 pandemic. Half of the respondents agreed that input from community resources and Fundamental/supportive resources adds to the school effectiveness during COVID-19 pandemic.

From the result of the findings, it can be observed that materials/ physical resources, financial resources, time resources, human resources and communication technology resources are the major resources that affected secondary school effectiveness during COVID-19 crises. This is in line with the findings of Onyeukwu and Nwanouruo, (2006) in their study, commenting on the role of infrastructure in institution, observed that the absence or insufficient of finances, human resources, time and infrastructures in the institutions constitutes a real source of worry because the act of pairing students in order to utilize tools or reduce time spent on teaching and learning during pandemic might be dangerous in order to curb spread of the virus, thus, there will be need for more tools/equipment for each student to have access to learning materials at the same time. Also Janet and Wongani, (2020) stated that students need adequate ICT facilities such as internet accessibility, materials and prompt monitoring the online programmes. This calls for enhancement of features of resources management to deliver helpful strategies for effective teaching and learning even during such pandemic.

**Research question 2:** What is the impact of ICT resources on school effectiveness during COVID-19 pandemic among secondary school students in Nigeria?

**Table 2: Impact of ICT resources on school effectiveness during COVID-19 pandemic**

S/N	Items	SA		A		D		SD	
		F	%	F	%	F	%	F	%
1	The use of ICT helps in the continuity of teaching and learning in my school.	13	13.0	29	29.0	36	36.0	22	22.0
2	The use of devices for teaching and learning during the pandemic improve academic performance of students.	17	17.0	31	31.0	38	38.0	14	14.0
3	Students have indifferent perceptions towards online teaching and classroom teaching.	27	27.0	51	51.0	16	16.0	6	6.0
4	All service needed for proper functioning of ICT resources are available to all teachers and students.	9	9.0	24	24.0	46	46.0	21	21.0
5	The effectiveness of ICT resources is not limited to teachers and students alone.	23	23.0	36	36.0	28	28.0	13	13.0



Table 2 shows that higher volume of the respondents (36.0%) disagreed that the use of ICT helps in the continuity of teaching and learning in their schools, 22% strongly disagreed, while others agreed to the opinion. Also in the area of academic performance during COVID-19, it was observed from the findings of the result that 17% of the respondents strongly agreed that the use of devices for teaching and learning during the pandemic improve academic performance of students, 31% agreed, 38% disagreed and 14% strongly disagreed. 27% of the respondents strongly agreed that students have indifferent perceptions towards online teaching and classroom teaching, 51% agreed, 16% disagree and 6% strongly disagreed. Based on the result, it can be observed that all service needed for proper functioning of ICT resources are not available to all the teachers and students as majority of the respondents disagreed to the opinion. 23% of the respondents strongly agreed that effectiveness of ICT resources is not limited to teachers and students alone, 36% agreed, 28% disagreed and 13% strongly disagreed.

The findings revealed that the use ICT resources is not effective during the pandemic in the selected schools, this limit the school effectiveness during the pandemic since only through ICT resources students and teachers can interact and continue schooling activities and still observe the rule in stopping the spread of the virus. Even in the issue of reliable connectivity, many educators lack the most basic ICT skills, meaning they will likely struggle with their own ongoing professional development, let alone with facilitating quality distance learning. This finding is in line with the findings of UNESCO, (2020) that COVID-19 crisis has highlighted that both initial and in-service teacher education are in need of reform to better train teachers in new methods of education delivery.

### Test of Hypothesis

**Hypothesis:** There is no significant relationship between relationship between resources management and secondary schools' effectiveness during COVID-19 pandemic in Nigeria.

**Table 2: Relationship between resources management and secondary schools' effectiveness during COVID-19 pandemic in Nigeria**

Variables	N	Mean	SD	Rcal	Rtab	Result
Resources management	100	2.29	1.076	0.092	0.059	Significant
School Effectiveness	100	3.07	1.207			

$P > 0.05$ .

The table above shows that  $r_{cal}$  (0.092) is greater than  $r_{tab}$  (0.059) at 0.05 level of significance. The null hypothesis is rejected, thus, there is significant relationship between relationship between resources management and secondary schools' effectiveness during COVID-19 pandemic in Nigeria. The positive relationship indicates a positive relationship between two variables, that is, the improvement in resources management level will also improve school effectiveness during the pandemic. This is in line with the result of Peretomode (2012), schools that have limited or no interest in the area of resources management effectiveness and schools that have not prepared e-learning resources experience difficulties, especially, during global crisis.

### **Conclusion**

Despite the fact that COVID-19 pandemic is affecting children's needs and school effectiveness, students experience a substantial loss of learning time, many schools had make a sudden shift to distant education and homebased teaching without having the conditions for their efficiency. School resources have become difficult to manage since most of the schools do not plan for the sudden threat the pandemic caused to the educational system. Many schools in Nigeria, especially the private schools, are managing their resources in order to keep the students busy and continuing effective teaching and learning by making use of eLearning facilities. Although the use of asynchronous learning is not such effective in some areas due to financial constraint and digital divide. For educational system to be effective during pandemic crisis, all schools should put in place emergency response to counter the impact of such crisis in future. The counter measure such as upgrading school ICT facilities and training of both teachers and students to effective use, encouraging parents to provide educational device/materials for their children, putting in place safety measure and security for well-being of students and awareness of safety precautions to stay safe from such pandemic.

### **Recommendations**

1. Government should provide relief funds for the upgrading of educational system to provide resources needed for the school management, teachers and students in order to comply with the pandemic rules and still delivering effective learning (for example schoolrooms, fittings, wash, and ICT facilities) to enhance and withstand recommended safe school reopening requirements.
2. Train teachers, administrators, and other education personnel on safety and hygiene measures-disinfection, safe distancing, hand washing, use of masks, respiratory etiquette, waste management.
3. **School management should** define the rules with parents and students on distance learning. In proposal of learners' feedback, parents should not be over burdened by demanding from them scanning and forwarding learners' response.

4. Equip and resource schools for improved teaching and learning methods for effective teaching and learning during pandemic.
5. Recruit additional teachers and education personnel to guarantee prescribe safe distancing teacher-learner ratio.
6. Create adequate classrooms and learning spaces to maintain safe distancing in schools.
7. **Provide support to teachers and parents on the use of digital tools.** There is need for given orientation for parents and teachers for effective monitoring. Also help teachers to prepare the basic settings such as solutions to the use of internet data if they are required to provide live streaming of lessons.
8. School management should blend tools or media that are available for most students, both for synchronous communication and lessons and for asynchronous learning.
9. School management should keep a coherent timing according to the level of the students' self-regulation and metacognitive abilities especially for livestreaming classes.
10. Creation of communities of teachers, parents and school managers to address sense of loneliness or helplessness, facilitate sharing of experience and discussion on coping strategies when facing learning difficulties.

## References

- Adedeji, S.O. (1998), *The relationship between resource utilization and academic performance in vocational education in Osun schools, Unpublished Ph.D. Thesis; University of Ibadan, Ibadan.*
- Adetoro, J.A., 2009. Resource management in education. In Babalola, J. B. & Ayeni. A.O.(Ed.). *Educational Management Theories and Tasks*. Lagos: Macmillan.
- Adetoro, S.O., 2002. Strategies for improving resource allocation and utilization in education. *Journal of Educational Management*, 13(4): 134 – 147.
- Agabi, C.O (2010). Prudential approach to resource management in Nigeria Education: A theoretical Perspective. *International Journal of Scientific Research in Education* 3(2): 9-106.
- Akpan, C.P., Ekpiken, W.E. and Okon, C.E. (2012). Incentive management and job involvement among teachers in technical schools in Cross River State. *Nigerian Journal of Educational Administration and Planning*, 7(2): 97-106.
- Alagboye, A.A., (2004). *Introduction to educational management in Nigeria*. Lagos, Nigeria: Daily Graphics.

- Banjoko, S.A., (2002). Human resource management: An expository approach Ibadan. Nigeria: Oluseyis Press.
- Fashiku, C.O., (2008). Relationship between management information system and organizational effectiveness in Nigerian colleges of education. Unpublished Ph.D Thesis, Department of Educational Management, Faculty of Education, Ilorin: University of Ilorin.
- Ilo, (2020) “TVET and skills development in the time of COVID-19”, 28 April 2020, available at <https://gemreportunesco.wordpress.com/2020/04/28/tvet-and-skills-development-in-the-time-of-covid-19>. Accessed 17/09/2020.
- International Task Force on Teachers for Education 2020, “COVID-19: A global crisis for teaching and learning”, available at <https://teachertaskforce.org/knowledge-hub/covid-19-global-crisis-teaching-and-learning>.
- Janet Lennox and Wongani Taulo. (2020). “Three innovative responses to COVID-19 that have removed barriers to learning for the most marginalized”, *World Education Blog*, available at <https://gemreportunesco.wordpress.com/2020/07/13/three-innovative-responses-to-covid-19-that-have-removed-barriers-to-learning-for-the-most-marginalised>. Accessed 17/09/2020.
- National Open University of Nigeria (NOUN, 2009): Principles of institutional administration: Lagos: Gold's prints limited.
- Omosewo, E.O, Ogunlade, O.O and Oyeddeji, T.O (2012). Attitude of teachers towards utilizing community resources in physics in Abuja, Nigeria: *Journal of Education and Practice*. Vol. 3(12): pp.86 -90.
- Onyeukwu, F.O. and C.C. Nwanouruo, 2006. Strategies for repositioning of primary education in Nigeria for effectiveness and efficiency. *Multi-Disciplinary Journal of Research Development*, 7(6): 93-96.
- Peretomode, V.F., 2012. Leadership: Principles and theoretical perspectives. Benin City: Justice Joco Publishers Limited.
- UNESCO, (2020) “Education sector issue note 2.2”, available at <https://unesdoc.unesco.org/ark:/48223/pf0000373338/PDF/373338eng.pdf.multi>. Accessed 17/09/2020.
- UNESCO, (2020) *GEM report, 2020*, available at <https://unesdoc.unesco.org/ark:/48223/pf0000373718>. Accessed 17/09/2020.  
[www.humanresourceexcellence.com](http://www.humanresourceexcellence.com), Accessed 17/09/2020.