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Physical Facilities Availability and Utilization for Quality Delivery of Secondary Education in Enugu State

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ABSTRACT
The study examined the availability and utilization of physical facilities for quality delivery of secondary education in Enugu State. In order to achieve the objectives of this study, four research questions guided the study while four hypotheses were tested at 0.05level of significance. Descriptive survey research design was adopted for the study. The population for the study comprised 295 principals and 8521 teachers and validated by three experts. Two of them were from the Department of Educational Management and one from Department of Mathematics and Computer Education, all from Faculty of Education, Enugu State University of Science and technology (ESUT), Enugu. To ensure the reliability of the instrument, it was trial tested on 12 principals and 28 teachers in the public secondary To ascertain the internal consistency of the instrument, the researcher used Cronbach alpha statistic to compute the internal consistency. The computation yielded 0.79 for cluster 1, 0.82 for cluster 2, 0.80 for cluster 3 and 0.79 for cluster 4. The instrument had an overall reliability index of 0.80; while mean scores and standard deviations were used to answer the four research questions. Then, t-test statistic was used to test the null hypotheses at .05 level of significant. The findings of the study revealed that laboratory facilities are available and utilized for quality delivery to a low extent. Instructional facilities are available and utilized for quality delivery to a low extent. Infrastructural facilities are available and also utilized for quality delivery to a low extent. Sports facilities are available and utilized for quality delivery of secondary education in Enugu State also to a low extent. Based on the findings of the study, the researchers recommended among others that laboratory facilities should be made available by school administrators and the government for meaningful teaching and learning in secondary schools. The vice principals and teachers in secondary schools should imbibe maintenance culture so as to sustain effective use of the available physical facilities

Keywords: Physical Facilities, Secondary Education, Quality Delivery, Teaching, and Learning.

I. INTRODUCTION

Education is for life and for living. Mlozi (2013) defined education as the primary agent of transformation towards sustainable development since it increases people's capacities to transform their visions into reality. Alumode in Aja-Okorie and Usulor (2016), defined education as the vehicle for rapid national development as it raises the young ones who will effectively manage the economy. Ollor (2021) posited that education plays a significant role in the formation and development of human and natural resources. Ogbuanya and Okoye (2015), posited that education is a potential instrument for social change which often brings about societal wellbeing and political awareness which ultimately promotes economic development.

Education has proved to be the most effective tool in developing programmes that involve human beings. Education is a means of accessing broader social, economic, political, and cultural benefits due to its transformative and empowering potentials (Fabiyi and Ogunyemi, 2015). The education system in Nigeria is segmented into early child education, primary education, secondary education and tertiary education, (Oloko, 2015). Secondary education, the focus of this study is critical to the education of a child, being the bridge between primary and tertiary levels of education. Secondary education is meant for children between the ages of 11 and 16 years in Nigeria (Federal Republic of Nigeria, FRN, 2013). Secondary education is referred to as post-primary formal education offered to persons who have successfully completed seven years of primary education and have met the requisite entry requirements (Komba, 2013). According to Okoro (2015), secondary education is designed to foster national unity, with emphasis on the common ties that unite us in our society. The drivers of secondary educational programmes are the teachers (Okoro, 2019).

Physical facilities are items that enable a teacher to achieve a level of instructional effectiveness. Okomolate and Adesua (2016) defined physical facilities as the school plant, that is, the school buildings, classrooms, library, laboratories, toilet facilities, offices and other materials and infrastructures that would likely motivate students towards learning. Anike and Tari (2011), defined physical facilities as those things that enable the teacher to do his work very well and helping the learners to learn effectively. Asiyai (2012: p9), defined physical facilities "as materials, resources that enhance teaching and learning thereby, making the process meaningful and purposeful". Physical facilities are the entire school plant which administrators, teachers, and students make use of, share and utilize for effective administration and efficient management of school for purposeful teaching and learning experience (Odey, 2018).

Physical facilities include the classrooms, buildings, laboratories, laboratory equipment, the school furniture, the chalk board, tools and machines, audio and audio visual aids etc. The above is in line with Peretomede in Odey (2018), who asserted that physical facilities are those materials that give a good teacher an opportunity to achieve a level of instructional effectiveness. In any school physical facilities such as classrooms, teachers' houses, pit latrines, and furniture are the most important resources that help to ensure that teaching and learning is going on smoothly. As Schneider (2012), observed, clean, quiet, safe, comfortable and healthy environments are important components for successful teaching and learning. Schneider further stated that a school without adequate and quality physical facilities makes it too hard for the teachers to teach and for the students to be attentive in their studies, hence, the need for availability of physical facilities.

Ideed, education is the hallmark of development. The quality of education determines the quality and extent of development of a nation. This is why every nation invests tremendously in education. Nations strive to provide her citizens with quality education because the products of their schools will direct economic, social and political development of the country. For quality education to be realized, the quality of facilities as well as their utilization needs to be both adequate and appropriate. In other words, the quality of education facilities and their level of utilization enhance quality delivery and outcome. No matter how qualified and committed a teacher is, if the facilities are not available and adequate as well as properly utilized, no much will be achieved in terms of quality delivery.

The purpose of the study was to investigate into the availability and utilization of physical facilities for quality delivery of secondary education in Enugu State. Specifically, the study determined the:

1. extent of availability and utilization of laboratory facilities for quality delivery of secondary education in Enugu State;
2. extent of availability and utilization of instructional facilities for quality delivery of secondary education in Enugu State;
3. extent of availability and utilization of infrastructural facilities for quality delivery of secondary education in Enugu State;
4. extent of availability and utilization of sports facilities for quality delivery of secondary education in Enugu State.

Practically, the findings of the study would be of significance to the government, principals, teachers, students, society at large and future researchers. The government would benefit because it would bring to limelight the physical facilities that are functional in schools and the need to live up to their responsibilities.

II. LITERATURE REVIEW

Concept of Secondary Education

Education is a conscious and deliberate effort to create an atmosphere of learning and the learning process so that learners can actively develop the potential to acquire skills that will

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enable them to live a rewarding life, control their emotions, develop their personality, intelligence, be of noble character, and contribute their own quota to the development of not just themselves but of their society. Socio-economic development of any nation hinges on its level of educational development (Senge, 2016).

Concept of Quality Delivery of Secondary Education

The concern for quality has been the main motivating force for reforms in education.

However, quality delivery encompasses attitudes, objectives, actions and procedures which through their existence and use, together with quality control activities ensure that appropriate academic standards are maintained and achieved in each programme. Afemikhe (2017) defined quality as the basic and indispensable feature of a thing which differentiates it from other things. Ekundayo (2010) posited that, quality is synonymous with standard, efficiency, excellence, relevance and worthiness. Aigboje (2017) referred to quality as excellence or more of societal values embodied in the school curricula. Maduewesi (2015) perceived quality in education as multi-faceted and encompassing how learning is organized and managed, content of learning, level of learning, outcomes and the totality of the environments in which education takes place. To be optimally utilized, teachers' improvement in areas of in-service training, workshops, and seminars is required. Therefore, quality delivery in education is closely tied to an enhanced human resource development.

However, Ebong (2016: p42) stated that quality delivery in education can be identified in the amount of resource inputs such as teachers, infrastructure, textbooks, and instructional material; outputs including academic achievements on test scores and pass ratio; process including student/teacher interaction; level of learner participation and learning engagement; content e.g. curriculum and contemporary knowledge; regulation e.g. perception of the general public and historical image of the school; and values e.g. the overall development of the students. Adegbile and Adeyemi (2018) noted that quality or standards for educational sector warrants establishment of a set of quality indicators, measuring instruments and time frame indicators. They are of the view that for there to be quality delivery in our secondary schools, there is need for quality learners, quality teaching, quality facilities, quality learning environment and quality outcomes. Quality delivery demands that students should be of required standard before they are admitted into schools or promoted when in school. It is in the light of these that Ebenebe (2018) viewed admission of children with very poor academic standards into secondary schools as a way of laying the foundation for indiscipline and cheating in examinations. According to Ijaiya (2011), examination malpractice indicates a declining quality of education; moreover, those who engage in cheating at a lower level are likely to continue at higher level of education. When they graduate into the society, their previous attitudes can easily lead them into corrupt practices. In other word, students who possess certificates through cheating could use the certificates to secure jobs and they would not be able to perform, leading to poor productivity.

Concept of Physical Facilities

Physical facilities refer to the buildings, playgrounds and mobile structures provided for the purpose of enhancing teaching and learning process. Physical facilities are the plant facilities provided in the school in order to facilitate teaching learning process. It includes school building, availability of enough rooms, proper lighting and ventilation, provision of pure and safe drinking water, availability of play grounds, laboratories, writing boards, enough washrooms. They are buildings and grounds, parking lots, playing fields, and fixed equipment. Physical facilities are visible and exist in physical form. Physical facilities can be used to facilitate teaching and learning. The facilities are the essential tools with which activities and operations of the school are carried and they cannot be ignored in economic rationalization of development planning in education (Enaohwo, 2019).

Physical facilities have been observed as a potent factor to qualitative education (Owoeye, 2011). Educational facilities can be used in a more restricted sense to refer to items or facilities either added to existing provision or obtained by re-organizing an existing situation. Various sectional interests tend to place even more restricted meanings in defining educational resources. An audio-visual enthusiast might thing of resources as audio-visual equipment and complementary staff-wars; educational technologist in terms of individual learning materials; a school librarian as

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non-book items used to extend his traditional role of supply of data. However, resources are all materials available to any educational institutions and are meant to enhance teaching and learning.

III. RESEARCH METHOD

The research adopted descriptive survey research design. Leedy and Ormrod (2013), defined descriptive survey research design as a design used to study population which allows for selecting, studying and analyzing sample chosen from the target population, from which inferences/generalization are made about the entire population. Nworgu (2015), further defined descriptive survey research design as a design that aims at collecting data and describing them in a systematic way. Based on the above definitions, the descriptive survey research design was considered appropriate for this study because the researcher used a sample from teachers in public secondary schools, who were considered a representative of the entire population.

Area of Study

The study was conducted in all the 295 public secondary schools in Enugu State under Post Primary Schools Management Board (PPSMB). Enugu State is one of the states in the South East Zone of Nigeria. Enugu State has 17 Local Government Areas. Enugu State also has six education zones namely; Agbani, Agwu, Enugu, Nsukka, Obolla-Afor and Udi education zones. The states located at the borders of Enugu State are: Abia State and Imo State to the South, Ebonyi State on the East, Benue State to the Northeast, Kogi State to the Northwest and Anambra State to the West. The inhabitants are mainly civil servants, businessmen and artisans. This area of study is chosen because the researcher is very familiar with the secondary school activities therein in terms of inadequacy of physical facilities.

Population for the Study

The population for the study was 8,816 principals and teachers. It comprises 295 principals and 8521 teachers in the 295 public secondary schools in Enugu State (Source: Post Primary Schools Management Board, PPSMB, 2021).

Sample and Sampling Techniques

The sample size was 1,147 respondents. The sample for the study consisted of 295 principals and 852 teachers in the public secondary schools in Enugu State. The researcher made use of all the principals because the population is manageable. The researcher used proportionate sampling technique to draw 10% of the population of the teachers in each education zone of the public secondary schools in Enugu State to justify the sample size of 852. The choice of principals and teachers as respondents of this study is because of their roles in planning, managing and utilizing of physical facilities in secondary schools.

Instruments for Data Collection

The instrument for data collection was a researcher structured questionnaire titled: "Availability and Utilization of Physical Facilities for Quality Delivery of Secondary Education Questionnaire (AUPFQDSEQ)". The instrument was made up of two sections - A and B. Section A was on the bio-data of the respondents while section B was on the information on AUPFQDSEQ. It had 52 items that were built in four clusters. Cluster 1 had 15 items on availability and utilization of laboratory facilities, cluster 2 had 13 items on availability and utilization of instructional facilities, cluster 3 had 15 items on the availability and utilization of infrastructural facilities and cluster 4 had 9 items on availability and utilization of sports facilities. Furthermore, a four point scale with assigned values was used to rate the responses to the questionnaire items as follows: Very Great Extent (VGE) = 4 points, Great Extent (GE) = 3 points, Low Extent (LE) = 2 points and Very Low Extent (VLE) = 1 point (See Appendix A).

Validation of the Instrument

To ascertain the face validity of the instrument, the questionnaire was given to two experts in the Department of Educational Management and one expert in Department of Mathematics and Computer Education, all from Faculty of Education, Enugu State University of Science and Technology, Enugu. They were requested to validate the instrument in terms of clarity, adequacy and appropriateness with particular reference to the purpose of study, research questions and hypotheses. Their suggestions and criticisms enabled the researcher to develop the final draft of the instrument which will be used to collect data for the study. All the items survived the validation process.

Reliability of the Instrument

To ensure the reliability of the instrument, it was trial tested on 12 principals and 28 teachers in the public secondary schools in Anambra State. Anambra State was used because the respondents

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from both Enugu and Anambra States shared similar characteristics in terms of school administration. To ascertain the internal consistency of the instrument, the researcher made used of Cronbach alpha statistic to compute the internal consistency. The computation yielded 0.79 for cluster 1, 0.82 for cluster 2, 0.80 for cluster 3 and 0.79 for cluster 4. Thus, instrument had an overall reliability index of 0.80.

Method of Data Collection

The researcher administered the copies of the questionnaire to the respondents with the help of five research assistants. The research assistants were briefed by the researcher on how best to administer and collect the completed copies of the instrument. They were taught on how to be polite to the respondents, how to answer questions when the need arises among others. However, out of the 1,147 copies of questionnaire administered, the researcher with his research assistants retrieved 1,088 copies (286 from principals and 802 from teachers) which resulted to 94.86% returned rate.

Method of Data Analysis

The research questions were answered using mean and standard deviation. In rating the mean, each response option had a numerical value based on real limit of numbers: VGE = 3.50-4.00; GE= 2.50-3.49; LE = 1.50-2.49; VLE = 0.00-1.49. The hypotheses were tested using t-test statistic at 0.05 level of significance. The interpretation of the test of hypotheses was based on the significance (sig.) values from the SPSS output. The null hypotheses were not rejected when the significance values are less than 0.05, but rejected when greater than 0.05.

IV. DATA PRESENTATION, ANALYSES AND RESULTS

The data analyzed were presented in tables based on the research questions as follows:

Research Question 1

To what extent are laboratory facilities available and utilized for quality delivery of secondary education in Enugu State?

Table 1: Mean scores and standard deviation of principals and teachers on the extent to which laboratory facilities are available and utilized for quality delivery of secondary education in Enugu State

	ITEMS	Principals 286		Teachers 802		Overall 1088		
S/N	The following laboratory facilities are available and utilized for quality delivery of secondary education:	$\bar{x}$	**SD**	$\bar{x}$	**SD**	$\bar{x}$	**SD**	**Dec**
1	periodical charts.	2.52	.84	2.50	.80	2.51	.82	GE
2	measuring cylinders.	2.52	.82	2.48	.84	2.50	.83	GE
3	thermometer.	2.52	.80	2.51	.83	2.52	.82	GE
4	retort stands.	2.46	.82	2.54	.80	2.50	.81	GE
5	electricity supply.	1.58	.84	1.56	.84	1.57	.84	LE
6	water supply.	1.37	.82	1.39	.80	1.38	.81	VLE
7	accumulator.	1.54	.82	1.53	.83	1.54	.83	LE
8	volumetric flask.	2.48	.83	2.47	.81	2.48	.82	LE
9	evaporating discs.	1.50	.83	1.51	.82	1.51	.82	LE
10	pipettes.	2.51	.82	2.53	.81	2.52	.81	GE
11	laptops/desktop computers.	1.54	.83	1.53	.81	1.51	.82	LE
12	sand bucket.	1.37	.80	1.36	.81	1.37	.81	VLE
13	internet facilities.	2.29	.83	2.30	.81	2.30	.82	LE
14	burners.	2.51	.85	2.53	.83	2.52	.84	GE
15	fire extinguisher.	1.49	.82	1.51	.82	1.50	.82	LE
	Cluster Mean/SD	**2.01**	**.82**	**2.02**	**.82**	**2.02**	**.82**	**LE**

Source: Research Field Survey, 2022

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The data analysis on Table 1 above shows the mean ratings of principals and teachers on the extent to which laboratory facilities are available and utilized for quality delivery of secondary education. In the above Table, the principals' mean ranged from 1.37 to 2.52, while the teachers' mean ranged from 1.36 to 2.54 respectively. The values of the cluster mean for principals and teachers are 2.01 and 2.02 with standard deviations of .82 and .82 respectively. However, their overall mean ranged from 1.37 to 2.52 with cluster mean of 2.02 and standard deviation of .82 respectively. The finding of the study reveals that laboratory facilities are available and utilized for quality delivery of secondary education in Enugu State to a low extent.

Research Question 2
To what extent are instructional facilities available and utilized for quality delivery of secondary education in Enugu State?

Table 2: Mean scores and standard deviation of principals and teachers on the extent to which instructional facilities are available and utilized for quality delivery

	ITEMS	Principals 286		Teachers 802		Overall 1088		
S/N	The following instructional facilities are available and utilized for quality delivery of secondary education:	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD	Dec
16	audio-visuals.	2.41	.83	2.38	.80	2.40	.82	LE
17	school radio.	2.08	.80	2.00	.80	2.04	.80	LE
18	computers.	2.27	.83	2.21	.82	2.24	.83	LE
19	photocopying machine.	2.16	.84	2.18	.81	2.17	.83	LE
20	chalkboards.	2.58	.82	2.52	.84	2.55	.83	GE
21	teacher made notes.	2.67	.85	2.63	.83	2.65	.84	GE
22	pictures.	2.54	.83	2.54	.83	2.54	.83	GE
23	textbooks.	2.58	.85	2.57	.85	2.58	.85	GE
24	crafts.	2.50	.83	2.49	.82	2.50	.83	GE
25	film projectors.	1.47	.82	1.43	.83	1.45	.83	VLE
26	technical equipment.	2.54	.82	2.53	.84	2.54	.83	GE
27	specimens.	2.51	.83	2.50	.81	2.51	.82	GE
28	interactive board.	1.49	.89	1.48	.89	1.49	.89	VLE
	Cluster Mean/SD	**2.29**	**.83**	**2.27**	**.83**	**2.28**	**.83**	**LE**

Source: Research Field Survey, 2022

The data analysis on Table 2 above shows the mean ratings of principals and teachers on the extent to which instructional facilities are available and utilized for quality delivery of secondary education. In the above Table, the principals' mean ranged from 1.47 to 2.67, while the teachers' mean ranged from 1.43 to 2.63 respectively. The values of the cluster mean for principals and teachers are 2.29 and 2.27 with standard deviations of .83 and .83 respectively. However, their overall mean ranged from 1.45 to 2.65 with cluster mean of 2.28 and standard deviation of .83. The finding of the study reveals that instructional facilities are available and utilized for quality delivery of secondary education in Enugu State to a low extent.

Research Question 3
To what extent are infrastructural facilities available and utilized for quality delivery of secondary education in Enugu State?

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Table 3: Mean scores and standard deviation of principals and teachers on the extent to which infrastructural facilities are available and utilized for quality delivery

	ITEMS	Principals 286		Teachers 802		Overall 1088		
S/N	The following infrastructural facilities are available and utilized for quality delivery of secondary education:	$\bar{x}$	**SD**	$\bar{x}$	**SD**	$\bar{x}$	**SD**	**Dec**
29	teachers' offices.	2.53	.88	2.51	.82	2.52	.85	GE
30	principal's offices.	2.54	.83	2.56	.84	2.55	.84	GE
31	teachers' desks.	2.57	.85	2.51	.82	2.54	.84	GE
32	fans.	2.46	.82	2.47	.84	2.47	.83	LE
33	staff rooms.	2.58	.83	2.51	.82	2.55	.83	GE
34	assembly halls.	2.37	.89	2.35	.86	2.36	.88	LE
35	toilet facilities.	2.24	.85	2.23	.84	2.24	.85	LE
36	libraries.	2.48	.83	2.47	.81	2.48	.82	LE
37	classrooms.	2.60	.82	2.58	.84	2.59	.83	GE
38	teachers' tables.	2.47	.83	2.43	.85	2.45	.84	LE
39	workshops.	2.34	.85	2.36	.83	2.35	.84	LE
40	consumables.	2.37	.86	2.33	.80	2.35	.83	LE
41	storage space.	2.48	.85	2.48	.84	2.48	.85	LE
42	school hostels.	1.21	.80	1.14	.82	1.18	.81	VLE
43	ICT rooms.	1.49	.82	1.54	.80	1.52	.81	LE
	Cluster Mean/SD	**2.32**	**.84**	**2.30**	**.83**	**2.31**	**.84**	**LE**

Source: Research Field Survey, 2022

The data analysis on Table 3 above shows the mean ratings of principals and teachers on the extent to which infrastructural facilities are available and utilized for quality delivery of secondary education. In the above Table, the principals' mean ranged from 1.21 to 2.60, while the teachers' mean ranged from 1.14 to 2.58 respectively. The values of the cluster mean for principals and teachers are 2.32 and 2.30 with standard deviations of .84 and .83 respectively. However, their overall mean ranged from 1.18 to 2.59 with cluster mean of 2.31 and standard deviation of .84. The finding of the study reveals that infrastructural facilities are available and utilized for quality delivery of secondary education in Enugu State to a low extent.

Research Question 4

To what extent are sports facilities available and utilized for quality delivery of secondary education in Enugu State?

Table 4: Mean scores and standard deviation of principals and teachers on the extent to which sports facilities are available and utilized for secondary quality education

	ITEMS	Principals 286		Teachers 802		Overall 1088		
S/N	The following sports facilities are available and utilized for quality delivery of secondary education:	$\bar{x}$	**SD**	$\bar{x}$	**SD**	$\bar{x}$	**SD**	**Dec**
44	lawn-tennis court.	1.52	.87	1.45	.81	1.47	.86	VLE
45	soccer field.	1.56	.80	1.56	.88	1.56	.84	LE
46	playing ground.	1.57	.88	1.51	.83	1.54	.86	LE
47	table tennis court.	1.46	.85	1.47	.80	1.47	.83	VLE
48	gymnasium.	1.58	.82	1.51	.81	1.55	.82	LE
49	volley ball court for students.	1.37	.88	1.50	.80	1.44	.84	VLE

50	handball field.	1.54	.84	1.53	.81	1.54	.83	LE
51	relay tracts.	1.48	.87	1.47	.81	1.48	.84	VLE
52	short put game.	1.41	.84	1.49	.82	1.50	.83	LE
	Cluster Mean/SD	**1.50**	**.85**	**1.50**	**.82**	**1.50**	**.84**	**LE**

Source: Research Field Survey, 2022

The data analysis on Table 4 above shows the mean ratings of principals and teachers on the extent to which sports facilities are available and utilized for quality delivery of secondary education. In the above Table, the principals' mean ranged from 1.37 to 1.58, while the teachers' mean ranged from 1.45 to 1.56 respectively. The values of the cluster mean for principals and teachers are 1.50 and 1.50 with standard deviations of .85 and .82 respectively. However, their overall mean ranged from 1.44 to 1.56 with cluster mean of 1.50 and standard deviation of .84. The finding of the study reveals that sports facilities are available and utilized for quality delivery of secondary education in Enugu State to a low extent.

Hypotheses

HO_1: There is no significant difference between the mean ratings of principals and teachers on the extent to which laboratory facilities are available and utilized for quality delivery of secondary education in Enugu State.

Table 5: Summary of t-test analysis of the mean ratings of principals and teachers on the extent to which laboratory facilities are available and utilized for quality delivery of secondary education in Enugu State

Group	n	$\bar{x}$	SD	df	p-value	Decision
Principals	286	2.01	.82	1086	.147	H_{01} not rejected
Teachers	802	2.02	.82			

Source: Research Field Survey, 2022

Data in Table 5 for principals and teachers on the extent to which laboratory facilities are available and utilized for quality delivery of secondary education in Enugu State show that at 1086 degree of freedom, the p-value was .147. The outcome of the p-value is greater than 0.05 level of significance set for this study. This signifies that the null hypothesis was not rejected and, therefore, there was no significant difference between the mean ratings of principals and teachers on the extent to which laboratory facilities are available and utilized for quality delivery of secondary education in Enugu State.

HO_2: There is no significant difference between the mean ratings of principals and teachers on the extent to which instructional facilities are available and utilized for quality delivery of secondary education in Enugu State.

Table 6: Summary of t-test analysis of the mean ratings of principals and teachers on the extent to which instructional facilities are available and utilized for quality delivery

Group	n	$\bar{x}$	SD	df	p-value	Decision
Principals	286	2.29	.83	1086	.063	H_{02} not rejected
Teachers	802	2.27	.83			

Source: Research Field Survey, 2022

Data in Table 6 for principals and teachers on the extent to which instructional facilities are available and utilized for quality delivery of secondary education in Enugu State show that at

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1086 degree of freedom, the p-value was .063. The outcome of the p-value is greater than 0.05 level of significance set for this study. This implies that the null hypothesis was not rejected and, therefore, there was no significant difference between the mean ratings of principals and teachers on the extent to which instructional facilities are available and utilized for quality delivery of secondary education in Enugu State.

HO_3: There is no significant difference between the mean ratings of principals and teachers on the extent to which infrastructural facilities are available and utilized for quality delivery of secondary education in Enugu State.

Table 7: Summary of t-test analysis of the mean ratings of principals and teachers on the extent to which infrastructural facilities are available and utilized for quality delivery of secondary education in Enugu State

Group	n	$\bar{x}$	SD	df	p-value	Decision
Principals	286	2.32	.84	1086	.109	H_{03} not rejected
Teachers	802	2.30	.83			

Source: Research Field Survey, 2022

Data in Table 7 for principals and teachers on the extent to which infrastructural facilities are available and utilized for quality delivery of secondary education in Enugu State show that at 1086 degree of freedom, the p-value was .109. The outcome of the p-value is greater than 0.05 level of significance set for this study. This reveals that the null hypothesis was not rejected and, therefore, there was no significant difference between the mean ratings of principals and teachers on the extent to which infrastructural facilities are available and utilized for quality delivery of secondary education in Enugu State.

HO_4: There is no significant difference between the mean ratings of principals and teachers on the extent to which sports facilities are available and utilized for quality delivery of secondary education in Enugu State.

Table 8: Summary of t-test analysis of the mean ratings of principals and teachers on the extent to which sports facilities are available and utilized for quality delivery of secondary education in Enugu State

Group	n	$\bar{x}$	SD	df	p-value	Decision
Principals	286	1.50	.85	1086	.112	H_{04} not rejected
Teachers	802	1.50	.82			

Source: Research Field Survey, 2022

Data in Table 8 for principals and teachers on the extent to which infrastructural facilities are available and utilized for quality delivery of secondary education in Enugu State show that at 1086 degree of freedom, the p-value was .112. The outcome of the p-value is greater than 0.05 level of significance set for this study. This shows that the null hypothesis was not rejected and, therefore, there was no significant difference between the mean ratings of principals and teachers on the extent to which sports facilities are available and utilized for quality delivery of secondary education in Enugu State.

V. SUMMARY OF FINDINGS

The following are the summary of findings of this study:

1. Laboratory facilities are available and utilized for quality delivery of secondary education in Enugu State to a low extent.
2. Instructional facilities are available and utilized for quality delivery of secondary education in Enugu State to a low extent.

3. Infrastructural facilities are available and utilized for quality delivery of secondary education in Enugu State to a low extent.
4. Sports facilities are available and utilized for quality delivery of secondary education in Enugu State to a low extent.
5. There was no significant difference between the mean ratings of principals and teachers on the extent to which laboratory facilities are available and utilized for quality delivery of secondary education in Enugu State.
6. There was no significant difference between the mean ratings of principals and teachers on the extent to which instructional facilities are available and utilized for quality delivery of secondary education in Enugu State.
7. There was no significant difference between the mean ratings of principals and teachers on the extent to which infrastructural facilities are available and utilized for quality delivery of secondary education in Enugu State.
8. There was no significant difference between the mean ratings of principals and teachers on the extent to which sports facilities are available and utilized for quality delivery of secondary education in Enugu State

VI. DISCUSSIONS, CONCLUSION AND RECOMMENDATIONS

The finding of the study revealed that laboratory facilities are available and utilized for quality delivery of secondary education in Enugu State to a low extent. The evidence from the finding of the study revealed that electricity supply, water supply, accumulator, volumetric flask and evaporating discs were available and utilized to a low extent. The null hypothesis tested revealed that there was no significant difference between the mean ratings of principals and teachers on the extent to which laboratory facilities are available and utilized for quality delivery of secondary education in Enugu State.

The finding of the study is in accordance with Mucai (2013) who posited that there is lack of relevant laboratory facilities that are appropriate and suitable to Nigerian secondary schools. The finding is also in line with Anyadiegwu (2018) who posited that there is lack of relevant laboratory facilities that are appropriate and suitable for Nigerian schools. The finding of the study is in accordance with Adebisi, Tewogbade and Olajide (2017), who reported that laboratory facilities can be available, adequate but not utilized during science teaching and expressed fervent need for utilization of instructional resources in teaching and learning. The current researcher agrees with the finding because most secondary schools visited do not have basic laboratory equipment for practical.

Availability and Utilization of Instructional Facilities for Quality Delivery of Secondary Education

The finding of the study showed that instructional facilities are available and utilized for quality delivery of secondary education in Enugu State to a low extent. The evidence from the finding of the study shows that audio-visuals, school radio, computers, photocopying machine are available and utilized to a low extent. The null hypothesis tested revealed that there was no significant difference between the mean ratings of principals and teachers on the extent to which instructional facilities are available and utilized for quality delivery of secondary education in Enugu State.

The finding is in agreement with Amuchie (2015) who posited that the extent of availability and utilization of instructional facilities in secondary schools is very low. The finding is in accordance with Eze and Omeje (2018) who posited that instructional facilities like equipped library, chalk boards, computers are not evident in most secondary schools in Enugu State. The finding is in line with Onajite, et al. (2019) who posited that utilization of instructional facilities such as printed and non-printed facilities for effective teaching of the subject in junior secondary schools was to a low extent. The finding is in accordance with Dahiru, Akinpade and Aluko (2021) who posited that instructional facilities were inadequate and the available instructional facilities were not fully utilized in teaching. The current researcher agrees with this finding because most public secondary schools in Enugu State do not have adequate instructional facilities.

Availability and Utilization of Infrastructural Facilities for Quality Secondary Education

The finding of the study indicated that infrastructural facilities are available and utilized for quality delivery of secondary education in Enugu State to a low extent. The evidence from the finding of the study revealed that teachers' tables, workshops, consumables, storage space, school hostels and ICT rooms were available and utilized to a low extent. The null hypothesis tested revealed that there was no significant difference between the mean ratings of principals and teachers on the extent to which infrastructural facilities are available and

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utilized for quality delivery of secondary education in Enugu State.

The finding of the study is in line with Naisujaki, Jackson and Kirui (2017) posited that infrastructural facilities are available and utilized to a low extent. The finding of the study is in line with Adeyemi and Adu (2010) who posited that there was severe shortage of physical facilities in public schools. The finding of the study is in accordance with Okpalaoka in Odey (2018) who posited that structures of most of the schools are worn out and there are visible signs of leaking roofs, inaccessible routes, poor aesthetics, classrooms without windows and doors, dusty floor with little or no desks and chairs. The finding of the study is in agreement with Ohuche in Oruwari (2012) who posited that there are several uncompleted structures and damaged chairs, classrooms are devastated, grounds are untidy and lawns are not mowed regularly. The finding of the study is in line with Enaohwo and Eferakeya (2019) who posited that there are empty structures or halls without the basic equipment and materials for learning. The current researcher agrees with the finding of the study because most public secondary schools have dilapidated buildings which have affected quality delivery of secondary education.

Availability and Utilization of Sports Facilities for Quality Delivery of Secondary Education

The finding of the study revealed that sports facilities are available and utilized for quality delivery of secondary education in Enugu State to a low extent. The evidence from the finding of the study revealed that lawn-tennis court, soccer field, playing ground, table tennis court, gymnasium and volley ball court for students were available and utilized to a low extent. The null hypothesis tested revealed that there was no significant difference between the mean ratings of principals and teachers on the extent to which sports facilities are available and utilized for quality delivery of secondary education in Enugu State.

The finding of the study is in line with Azjen (2014) who posited that sports facilities are available and utilized to a low extent in secondary schools. The finding of the study is in accordance with Ugwuanyi (2013) who posited that of all the physical facilities only soccer fields are available in all the schools. The current researcher agrees with the finding of the study because most public secondary schools do not have functional sports facilities.

VII. CONCLUSION:

The study examined the availability and utilization of physical facilities for quality delivery of secondary education in Enugu State. Based on the findings, the study concludes that the existing physical facilities available and utilize for quality delivery of secondary education were grossly and generally inadequate. Consequently, the noble goals and objectives of secondary education in Enugu State have been seriously constrained by the absence of physical facilities. The study advocates aggressive provision of physical facilities to effectively enhance the quality delivery of secondary education in Enugu State. This would help to reverse the declining academic performance of students and ensure conducive environment for teaching and learning in secondary education in Enugu State and Nigeria in general.

Educational Implication - The findings of this study have some educational implications:

The findings show that the laboratory, instructional, infrastructural and sports facilities are not available and utilize to a low extent. The implication of this finding is that teaching and learning would be hampered thereby, exposing secondary school students to poor academic achievement in both internal and external examinations.

Recommendations: Based on the findings of the study, the researcher recommends that:

1. Laboratory facilities should be made available by school administrators and the government for meaningful teaching and learning in secondary schools.
2. The vice principals and teachers in secondary schools should imbibe maintenance culture so as to prolong the durability of available physical facilities in the schools.
3. The nongovernmental organizations and philanthropists should assist the government in the provision of physical facilities as a way of facilitating quality delivery of secondary education.
4. New class rooms should be constructed in those schools which were facing the shortage of class rooms.
5. School administrators should be equally sensitized on the need and importance of physical facilities in schools. This could be

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achieved through workshops for school principals.

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