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Availability Of Physical Facilities For Effective Learning Outcomes In Basic Secondary Schools In Delta Central Senatorial District

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ABSTRACT

This study investigates the availability of physical facilities and their impact on effective learning outcomes in basic secondary schools within the Delta Central Senatorial District. It highlights the critical role that physical infrastructure plays in the educational process, emphasizing that adequate facility such as classrooms, laboratories, libraries, and technological tools are essential for fostering a conducive learning environment. The research employs a descriptive survey design, utilizing questionnaires distributed to principals, teachers, and non-academic staff across selected public secondary schools. The findings reveal significant deficiencies in physical facilities, which adversely affect the quality of education. Key issues identified include overcrowded classrooms, insufficient teaching aids, lack of ICT resources, and inadequate maintenance of existing facilities. Statistical analyses demonstrate a strong correlation between the availability of physical facilities and effective learning outcomes, indicating that improvements in infrastructure could enhance educational performance. The study concludes with recommendations for policy implementation, stakeholder collaboration, and increased investment in school infrastructure to address these challenges and improve educational quality in the region. This research contributes valuable insights for educational planners and policymakers aiming to enhance academic success through infrastructural development in Delta Central Senatorial District.

Keywords: Availability, Physical facilities, Learning Outcomes, Basic secondary schools

INTRODUCTION

One of the greatest and most viable fundamental tools that any individual can possess for the purpose of creating self-awareness and self-development that tilts towards the frontiers of self-preservation and evolution via the process of the addition of more knowledge which is based on pre-established structures and principles is education. Amnon (2021) explains that education at its core is an ideological enterprise, and a comprehensive theoretical notion that focuses on the essentials of educational purposes and dimensions of the activities of leaning that embodies pedagogy, curriculum, and the organization of knowledge, categorized as part of an academic activity. Education is therefore the bedrock for the development of every nation (House, 2022; Eli, 2023), serving as a powerful vehicle for shaping civic identity, fostering economic growth, and promoting social cohesion, outlining its fundamental role not only in the growth of the individual learner but also advantageous to the society when articulated from a holistic point of view.

Given the centrality of academic institutions within the framework of educational policies the nature physical facilities employed therefore become necessary irrespective conditions under which these objectives are pursued and obtained. While policy frameworks outline the goals and intended outcomes of education, their success is largely contingent upon the material and structural capacities that support teaching and learning processes (Money & Ekwevugbe, 2008)

In this regard, it becomes evident that the translation of educational policies into meaningful outcomes hinges not only on the design of these policies but also on the tangible physical facilities and resources that underpin the learning environment, without physical infrastructure, even the most well-conceived curricular goals may fail to materialize. These facilities therefore typically include physical infrastructures such as classrooms, laboratories, libraries, and technological tools, all of which can contribute to the organizational framework of the academic environment (Nkedishi, Ekwevugbe & Akpoguma, 2025). The extent therefore, to which these resources are available or not available alters the estimated expectancy index of the instructional techniques that are employed and the level of diversity of learning experiences accessible to students. Facilities therefore according to Boh (2024) form an integral part of the environment of educational system and are a potent factor in determining the balance of qualitative and quantitative education.

Physical facilities are not merely a matter of structural appearance, but also are a critical factor in promoting sustained academic engagement and overall educational performance, that is hinged upon the fact that the status of physical facilities especially in public secondary schools are of great concern to educators (Akomolafe & Adesua, 2016; Ekwevugbe & Atare, 2022) and scholars within the academic cycle. Thus Omo (2021) asserts that the provision of a good school environment therefore breeds conducive atmosphere for learning such that a good school laboratory and environment promotes students' curiosity, creativity, and a spirit of healthy questioning.

Within the context of secondary school education, physical facilities refer to classrooms, textbooks, teaching aids, furniture, computers, and laboratories, all of which play a crucial role in shaping the learning experience of students, which do not only facilitate teaching and learning experience but also enhance students' ability to engage with the curriculum, acquire knowledge, and develop essential teaching and learning skills (Ekwevugbe, 2013).

Physical facilities in simplistic terms are the core requirements for the smooth execution of teaching and learning in schools, which encompass and are composed of the school site and buildings, which consists of all materials used in the process of dissipation and assimilation of knowledge and instruction which complements academic activities. Physical facilities therefore takes on many forms and ranges from staff rooms to classrooms, from sick bay (health centers) to assembly/play grounds, and consists of all types of buildings used for academic and non-academic purposes. Physical facilities in schools therefore exists for the purpose of teaching and learning (Aaro, 2020 ; Ekwevugbe & Atare, 2024) as they are expected to be strategically planned and maintained in order to ensure their relevance to the school, curriculum and effective teaching and learning outcomes.

The relationship between facilities and educational outcomes is multifaceted, as it encompasses not only the physical presence of infrastructure but also factors such as maintenance, accessibility, utilization, and alignment with pedagogical goals, which are based upon the natural logical sequence that forms the foundation of almost all educational institutions (Imonivwerha, Ekwevugbe & Okandeji 2011).

The importance of physical facilities in education cannot be overemphasized as physical facilities are indispensable tools for the necessitation of effective teaching and learning. According to the United Nations Educational, Scientific and Cultural Organization (UNESCO, 2020), physical facilities which is a form of educational resource encompass not only textbooks, teaching aids, and technological tools, but also infrastructures such as classrooms, laboratories and libraries. These forms of academic resource do not support only the curriculum but also facilitates student engagement, improving the overall learning experience for students (Ekwevugbe, Eguegu & Okandeji, 2009)

The relationship between physical facilities and student performance has been widely studied in Nigeria, as Agbor, Onnoghen, Nwachukwu & Esu (2022) revealed in their study that insufficient physical resources, such as inadequate classrooms, textbooks, and teaching aids, contributed to poor academic

performance, and as a result, schools with limited access to textbooks and instructional materials experienced difficulties in implementing the curriculum, leading to superb educational outcomes. . Thus physical facilities are enhancers of the teaching and learning process to become faster (Igwebuiké, Okandeji & Ekwevugbe, 2013; Aaro, 2020).

Amadi (2019) explained that both students and teachers need facilities such as libraries, laboratories, good buildings, classrooms, good water supply, toilet facilities, security etc. for teaching and learning to take place. Similarly, the World Bank (2018) highlights that schools with access to modern resources, such as computers and internet facilities, demonstrate better student outcomes due to the integration of physical facilities in the aspects of technology within the educational system. As Okebukola (2010) highlights that effective teaching therefore requires a variety of physical facilities and resources such as multimedia tools, textbooks, and laboratory equipment to support diverse learning styles and meet educational goals. The theoretical framework adopted by this study is the modified Theory of Reasoned Action (TRA) as postulated by Fishbien and Ajzen in 1975, stating that the most important determinant of an intention is expressed by the person's attitude towards that intention as influenced by social factors.

Statement of the problem

In Nigeria, secondary schools are expected to provide a well-rounded education that equips students with the necessary skills and knowledge for further academic pursuits or entry into the workforce. However, the availability and quality of physical facilities in many public secondary schools remain a significant challenge, stakeholders have lamented that physical facilities are inadequate and in some cases not available, while some of the facilities are over-utilized and others are under-utilized, and as a result teaching has been arbitrarily done without relevant instructional materials.

This anomaly is especially evident in secondary schools in Nigeria where physical facilities such as properly equipped classrooms, libraries, and laboratories are insufficient and as a result teaching aids, textbooks, and ICT tools are also in minute quantities, with many schools not being able to afford or maintain these essential resources. The availability or unavailability therefore of these physical facilities in secondary schools can have far-reaching implications with evidences of overcrowded classrooms, limited instructional materials, and an overall lack of engaging learning experiences. Such conditions therefore not only hinder the effectiveness of teaching but also contribute to lower academic achievement and diminished educational outcomes.

Despite various policy initiatives aimed at improving the educational system, secondary schools in Nigeria continue to struggle with inadequate physical facilities, overcrowded classrooms and scare learning materials, and essential facilities such as libraries, science laboratories, and computer rooms being either poorly equipped or entirely absent. Given the critical role that physical facilities play in enhancing the quality of education, it is important to assess the extent to which these resources are available in secondary schools in Delta Central.

Research Questions

1. To what extent do physical facilities affect effective learning in secondary schools in the Delta Central Senatorial District?
2. What types of physical facilities are most lacking or insufficient in secondary schools in the Delta Central Senatorial District?
3. How do differences in the availability of physical facilities affect student effective learning outcomes in the Delta Central Senatorial District?

Research Hypotheses

1. There are no statistical significant relationship between physical facilities and effective learning in secondary schools in the Delta Central Senatorial District
2. There are no statistical significant relationship between the availability of physical facilities and the quality of effective learning in secondary schools in Delta Central
3. There are no statistical significant relationship between lacking or insufficient physical facilities and effective learning in secondary schools in the Delta Central Senatorial District

METHODOLOGY

Design of the study

This study adopts the descriptive survey research design, which aims at systematically obtaining information what will be used to describe a particular phenomenon, singularity event or population trend.

Population of the Study

The population of this study is drawn from all 288 Public Secondary Schools in the eight (8) Local Governments Areas that comprise Delta Central Senatorial District.

Sample and sampling techniques

The sample for this study was one hundred and forty four (144) respondents selected using the simple random sampling technique made up of eighteen (18) Principals, teachers and non-academic staff Members from eight (8) Public secondary schools in Delta Central Senatorial District.

Research instrument

The Research instrument for this study is a well-structured questionnaire developed to capture the opinion of principals, teachers and non-academic staff titled “availability of physical facilities for effective learning outcomes in basic secondary schools” (APFFELBSS). The research instrument consisted of sections; A and B. Section A was designed to obtain demographic data from the respondents, while section B obtained information on the availability of physical facilities for effective learning outcomes, rated in a 4-point Likert scale format of Strongly Agree (SA= 4 points), Agree (A= 3 points), Disagree (D= 2 points) and Strongly Disagree (SD= 1 point), and Very Large Extent (VLE= 4 points), Large Extent (LE= 3 points), Low Extent (LE= 2 points) and No Extent (NE= 1 point) respectively.

Validity of Instrument

To ascertain the validity of the research instrument, it was submitted to experts in measurement and evaluation from Delta State University, Abraka for scrutiny to ensure that the instrument was adequately designed to capture what it was intended to capture.

Reliability of the instrument

The test re-test reliability of instrument was adopted for this study. The researcher administered the research instrument to 30 Principals, teachers and non-academic staff in schools which were outside the scope of the study and then re-administered it to different set after an interval of two (2) weeks to test for the consistency of the instrument. The analysis was performed using the SPSS (Statistical Package for Social Sciences) software version 25, which correlated the mean score obtained from the responses of the 1st group (Test1) with the mean scores of the respondents in the second group (Test2). This analysis yielded a correlation coefficient of 0.78,

Method of Data Analysis

The data were analyzed using mean, frequencies and percentages while the research hypotheses were analyzed with t-test and correlation using an Alpha level of 0.05 tests of significance.

RESULTS

Research Question One: *To what extent do physical facilities affect effective learning in secondary schools in the Delta Central Senatorial District?*

Table 1. Mean score of the variables on the extent to which physical facilities affects effective learning in secondary schools in the Delta Central Senatorial District

S/No	Independent Variable: Physical Facilities	N	LA	AE	LE	NE	Mean
1	The classrooms in my school are spacious enough to accommodate all students comfortably.	144	28	12	64	40	2.194
2	There are enough textbooks available for all subjects taught in my school.	144	25	11	70	38	2.160
3	My school provides adequate teaching aids (e.g., charts, models, visual materials).	144	20	15	65	44	2.076
4	ICT tools (e.g., computers, projectors, internet access) are available for learning purposes.	144	18	23	68	35	2.167
5	The physical learning environment (e.g., ventilation, lighting, seating) is conducive to learning.	144	14	18	70	42	2.028
6	Classrooms in my school are regularly maintained and kept clean.	144	82	30	22	10	3.278
7	There is adequate storage for teaching and learning materials in my school.	144	72	34	26	12	3.153
8	Teachers in my school frequently use ICT tools during lessons.	144	24	10	40	70	1.917
9	Textbooks used in my school are up-to-date and relevant to the curriculum.	144	82	45	12	5	3.417
10	Teaching aids are regularly used to enhance lesson delivery.	144	14	20	44	66	1.875
	Sub Mean						2.426
11	Dependent Variable: Effective Learning						
12	I understand lessons better when learning materials (e.g., textbooks, aids) are used.	144	70	40	22	12	3.167
13	I perform better academically when lessons are taught using ICT tools.	144	62	52	26	4	3.194
14	Group work and class activities are easier when classrooms are spacious and well-equipped.	144	81	48	10	5	3.424
15	The availability of textbooks makes it easier for me to study on my own.	144	92	36	11	5	3.493
16	I find lessons more interesting when teaching aids are used.	144	74	44	18	8	3.278
17	My academic performance has improved due to better access to learning resources.	144	76	32	21	15	3.174
18	I participate more actively in class when the learning environment is comfortable.	144	84	41	12	7	3.403
19	ICT tools have helped me develop better understanding of complex topics.	144	83	42	11	8	3.389
20	The quality of physical facilities influences how well I concentrate during lessons.	144	55	36	35	18	2.889
21	Effective learning in my school is supported by the availability of adequate facilities.	144	68	42	24	10	3.167
	Sub Mean						3.258
	Total Mean						2.842

Key: 0.1-1.25 = No Extent, 1.26 – 2.4 = Low Extent, 2.5 – 3.75 = Average Extent, 3.76 – 4.00 = Large Extent

The table 1 reveals that with regards to the research question one the extent to which physical facilities affects effective learning in secondary schools in the Delta Central Senatorial District, only variable 6, 7, 9 hand a mean score above the average 2.50 mean mark on the independent variable section of the table, implying that Classrooms in the school are regularly maintained and kept clean, There are adequate storage for teaching and learning materials in my school, and Textbooks used in the school are up-to-date and relevant to the curriculum. However, the table also showed that variable items 1, 2, 3, 4, 5, 8 and 10 had a mean score below the mean benchmark of 2.50 which indicates that classrooms in the school were not spacious enough to accommodate all students comfortably, There are not enough textbooks available for all subjects taught in the school, the school does not provides adequate teaching aids (e.g., charts, models, visual materials), ICT tools such as computers, projectors, internet access are not available for learning purposes, The physical learning environment such as ventilation, lighting, seating are not conducive to learning, Teachers in the school do not frequently use ICT tools during lessons and Teaching aids are not regularly used to enhance lesson delivery. This position was further confirmed by their sub mean score of 2.426 which is below the mean benchmark of 2.50.

Furthermore the table also highlighted that all other variable items on the dependent variable section had a mean score above the average mean bench mark of 2.50 implying therefore that effective learning took place or existed undermining the position of Independent Variable Physical Facilities. This position is also confirmed by the sub mean of 3.258 higher than the mean benchmark of 2.50. the overall position was however confirmed by the total mean score of 2.842 higher than the 2.50 mean benchmark indicating therefore that to an average extent physical facilities (such as classrooms, textbooks, teaching aids, and ICT tools) affects effective learning in secondary schools in the Delta Central Senatorial District.

Research Question Two: *What types of physical facilities are most lacking or insufficient in secondary schools in the Delta Central Senatorial District?*

Table 2. Mean score on the perception of teachers with regards to the types of physical facilities are most lacking or insufficient in secondary schools in the Delta Central Senatorial District

S/No	Independent Variable: Types of Physical Facilities	N	SA	A	SD	D	Mean
1	Our school has sufficient and well-maintained classroom buildings.	144	26	14	60	44	2.153
2	There are adequate science laboratories equipped for student practicals.	144	28	18	62	36	2.264
3	The school library is well-stocked and accessible to all students.	144	22	12	55	55	2.007
4	The school has functional and clean toilet facilities for students.	144	25	20	60	39	2.215
5	There is a dedicated and adequately equipped ICT/computer laboratory.	144	18	16	70	40	2.083
6	The school has a multipurpose hall or assembly space for gatherings.	144	86	33	16	9	3.361
7	We have sufficient furniture (e.g., chairs, desks) for all students.	144	24	10	74	36	2.153
8	The school has access to a reliable water supply on campus.	144	20	8	36	80	1.778
9	Our school provides adequate recreational or sports facilities.	144	24	15	70	35	2.194
10	There is a proper administrative building for school management activities.	144	44	66	14	20	2.931
	Sub mean						2.314
11	Dependent Variable: Perceived Sufficiency or Lack of Facilities						
12	The lack of functional laboratories negatively affects science learning.	144	72	44	18	10	3.236
13	Students find it difficult to comprehend due to overcrowded classrooms.	144	56	50	26	12	3.042
14	Poor toilet facilities dampens student's psychology anytime they want to use the convenience	144	88	46	7	3	3.521

15	Inadequate library resources hinder students' academic performance.	144	90	38	10	6	3.472
16	The absence of an ICT lab limits students' digital literacy.	144	77	40	15	12	3.264
17	Students do not have a comfortable or appropriate space for recreation.	144	69	38	21	16	3.111
18	Limited school furniture makes learning uncomfortable and less effective.	144	83	40	14	7	3.382
19	A lack of assembly or event space restricts extracurricular activities.	144	80	38	16	10	3.306
20	Water scarcity on campus affects student health and hygiene.	144	60	42	36	6	3.083
21	Poor school infrastructure reduces the overall quality of education.	144	78	45	15	6	3.354
	Sub Mean						3.277
	Total Mean						2.795

Key: 0.1-1.25 = Strongly Disagree, 1.26 – 2.4 = Disagree, 2.5 – 3.75 = Agree, 3.76 – 4.00 = Strongly Agree

Table (2) shows that with regards to the research question three on the types of physical facilities are most lacking or insufficient in secondary schools in the Delta Central Senatorial District, all the Independent Variable on Types of Physical Facilities had mean score below the average mean bench mark of 2.50, except variable item 6, and 10, implying that the school has a multipurpose hall or assembly space for gatherings and there is a proper administrative building for school management activities. However the table also highlighted that every other variable had a mean score below the mean benchmark of 2.50 indicating that schools do not have sufficient and well-maintained classroom buildings, there are no adequate science laboratories equipped for student practicals, The school library are not well-stocked and accessible to all students, school do not have functional and clean toilet facilities for students, there are no dedicated and adequately equipped ICT/computer laboratory, there are not enough sufficient furniture such as e.g., chairs, desks for all students, the school do not have access to a reliable water supply on campus, and schools do not provide adequate recreational or sports facilities. This position was confirmed by the sub mean of 2.314 lower than the average mean bench mark of 2.50.

Furthermore, the table also revealed that with regards to the Dependent Variable on Perceived Sufficiency or Lack of Facilities, all the variable items had a mean score that is above the 2.50 mean mark and with a sub mean of 3.277 also higher than the mean benchmark of 2.50 implying therefore that despite the shortfall of the Independent Variable on Types of Physical Facilities, the Dependent Variable on Perceived Sufficiency or Lack of Facilities, still excelled to an average extent as this position was further confirmed by the total mean score of 2.795 also higher than the mean benchmark of 2.50, implying that in generality the deplorable state of the types of physical facilities in secondary schools shows that they are the most lacking or insufficient physical facilities in secondary schools in the Delta Central Senatorial District.

Research Question Three: *How do differences in the availability of physical facilities affect student effective learning outcomes in the Delta Central Senatorial District?*

Table 3. Mean score on differences in the availability of physical facilities affect student effective learning outcomes in the Delta Central Senatorial District

S/No	Independent Variable: Availability of Physical Facilities	N	SA	A	SD	D	Mean
1	My school has well-equipped and functioning classrooms for all subjects.	144	25	12	58	49	2.090
2	There are adequate laboratory facilities (science, ICT, etc.) in my school.	144	28	16	65	35	2.257
3	The library in my school is accessible and adequately stocked.	144	22	18	60	44	2.125
4	My school has sufficient furniture for all students in classrooms.	144	20	25	59	40	2.174
5	Clean and functional restrooms are available for student use.	144	16	31	55	42	2.146
6	Sports and recreational facilities are adequately provided in my school.	144	26	12	74	32	2.222
7	My school has reliable electricity to support teaching and learning.	144	32	16	60	36	2.306
8	The unavailability of physical facilities in my school hampers practical learning activities.	144	40	50	34	20	2.764
9	My school provides accessible facilities for students with special needs.	144	12	15	72	45	1.958
10	There is regular maintenance of physical facilities in my school.	144	10	25	49	60	1.896
							2.194
11	Dependent Variable: Student Effective Learning Outcomes						
12	I understand lessons better when appropriate facilities are used during teaching.	144	72	44	16	12	3.222
13	The learning environment in my school enhances my academic performance.	144	60	54	24	6	3.167
14	I am able to concentrate better in class when classrooms are comfortable and well-equipped.	144	78	48	10	8	3.361
15	I feel motivated to study when learning resources are easily accessible.	144	90	32	12	10	3.403
16	Practical sessions in equipped labs help me retain knowledge better.	144	76	40	20	8	3.278
17	I can complete my assignments effectively due to available learning resources.	144	70	30	26	18	3.056
18	The condition of school facilities influences my attendance and participation.	144	88	45	9	2	3.521
19	Group learning is more effective when learning spaces are available.	144	80	40	15	9	3.326
20	The physical environment of the school contributes positively to my learning experience.	144	62	39	28	15	3.028
21	I perform better academically when school infrastructure supports my learning needs.	144	71	43	18	12	3.201
	Sub mean						3.256
	Total Mean						2.725

Key: 0.1-1.25 = Strongly Disagree, 1.26 – 2.4 = Disagree, 2.5 – 3.75 = Agree, 3.76 – 4.00 = Strongly Agree

Table (3) shows that with regards to the research question four on how the differences in the availability of physical facilities affect student effective learning outcomes in the Delta Central Senatorial District, Independent Variable on Availability of Physical Facilities all had mean score below the average mean bench mark of 2.50, except variable item 8, implying that the unavailability of physical facilities in my school hampers practical learning activities. However the table also highlighted that every other variable

had a mean score below the mean benchmark of 2.50 indicating that the school did not have well-equipped and functioning classrooms for all subjects, There are no adequate laboratory facilities such as science, ICT, etc. in the schools, the library in the school are not accessible and adequately stocked, the school do not have sufficient furniture for all students in classrooms, Clean and functional restrooms are not available for student use, Sports and recreational facilities are not adequately provided in the school, the school has no reliable electricity to support teaching and learning, the school do not provide accessible facilities for students with special needs and There are no regular maintenance of physical facilities in my school. This position was confirmed by the sub mean of 2.194 lower than the average mean bench mark of 2.50.

Furthermore, the table also revealed that with regards to the Dependent Variable on Student Effective Learning Outcomes, all the variable items had a mean scores above the 2.50 mean mark and with a sub mean of 3.277 higher than the mean benchmark of 2.50 signifying therefore that despite the shortfall of the Independent Variable on Availability of Physical Facilities, the Dependent Variable on Student Effective Learning Outcomes, still excelled to an average extent as this position was further confirmed by the total mean score of 2.795 higher than the mean benchmark of 2.50, which signifies that in generality differences in the availability of physical facilities does affect student effective learning outcomes in the Delta Central Senatorial District.

Research Hypotheses

Research Hypothesis One

Ho1: There are no statistical significant relationship between physical facilities and effective learning in secondary schools in the Delta Central Senatorial District.

Table 4: t-test table on the statistical significant relationship between physical facilities and effective learning in secondary schools in the Delta Central Senatorial District

Variables	N	Mean	SD	t-calc	t-crit	df	P	Decision
physical facilities	10	2.426	0.603	4.185	1.734	18	0.001	Reject Null
effective learning in secondary schools	10	3.258	0.178					

Table 4 shows t-test for the relationship between physical facilities and effective learning in secondary schools in the Delta Central Senatorial District. The analysis of this relationship produced a t-calculated value of 4.185, that is significantly greater in value than the critical t-value of 1.734, with a p-value of 0.001, implying therefore that a strong statistical significance exists, but as long as the t-calculated value of 4.185 is greater than the t- critical value of 1.734 the null hypothesis is rejected while the alternate hypothesis accepted and thereby implying that a statistical significant relationship does exist between physical facilities and effective learning in secondary schools in the Delta Central Senatorial District.

Research Hypothesis Two

Ho1: There are no statistical significant relationship between lacking or insufficient physical facilities and effective learning in secondary schools in the Delta Central Senatorial District.

Table 5: t-test table on the relationship between lacking or insufficient physical facilities and effective learning in secondary schools in the Delta Central Senatorial District

Variables	N	Mean	SD	t-calc	t-crit	df	P	Decision
lacking or insufficient physical facilities	20	2.796	0.601	2.361	1.701	28	0.025	Reject Null
effective learning in secondary schools	10	3.258	0.178					

The Table 5 highlights the results of a t-test for the relationship between lacking or insufficient physical facilities and effective learning in secondary schools in the Delta Central Senatorial District. The analysis of this relationship produced a t-calculated value of 2.361, that is significantly greater in value than the critical t-value of 1.701, with a p-value of 0.025, implying therefore that a strong statistical significance

exists, but as long as the t-calculated value of 2.361 is greater than the t-critical value of 1.701 the null hypothesis is rejected while the alternate hypothesis accepted and thereby implying that a statistical significant relationship does exist between lacking or insufficient physical facilities and effective learning in secondary schools in the Delta Central Senatorial District.

DISCUSSION OF RESULTS

The study revealed that the extent to which physical facilities affects effective learning in secondary schools in the Delta Central Senatorial District, were that classrooms in the school were not spacious enough to accommodate all students comfortably, there are not enough textbooks available for all subjects taught in the school, the school does not provides adequate teaching aids such as charts, models, visual materials, ICT tools such as computers, projectors, internet access are not available for learning purposes, the physical learning environment such as ventilation, lighting, seating are not conducive to learning, teachers in the school do not frequently use ICT tools during lessons and Teaching aids are not regularly used to enhance lesson delivery, and as result it was inferred that to an average extent physical facilities such as classrooms, textbooks, teaching aids, and ICT tools affects effective learning in secondary schools in the Delta Central Senatorial District.

The study further showed that available physical facilities impact the quality of learning in secondary schools in Delta Central, were that classrooms in the school are not spacious enough to accommodate all students comfortably, schools do not provide well-maintained furniture for both students and teachers, the school do not have functional and well-equipped science laboratory, there are not sufficient and accessible toilet facilities for students, the library in the schools are not adequately stocked with relevant and up-to-date materials, schools do not have reliable access to electricity and running water, sports and recreational facilities are not available and in good condition, the ICT/computer laboratory in the school are not adequately equipped and functional, the school environment such as buildings, lighting, ventilation are not conducive for learning, and physical infrastructure such as walls, roofs, floors in the school are not in good condition. This therefore implies that in generality despite the unavailability of physical facilities, Quality Effective Learning still excelled implying that available physical facilities impact the quality of effective learning in secondary schools in Delta Central to average extent.

The study reveals that the types of physical facilities most lacking or insufficient in secondary schools in the Delta Central Senatorial District, were well-maintained classroom buildings, adequate science laboratories equipped for student practical, school library that is well-stocked and accessible to all students, functional and clean toilet facilities for students, equipped ICT/computer laboratory, enough sufficient furniture such as e.g., chairs, desks for all students, access to a reliable water supply on campus, and adequate recreational or sports facilities, and as a result in generality the deplorable state of the types of physical facilities, in secondary schools shows that they are the most lacking or insufficient physical facilities in secondary schools in the Delta Central Senatorial District.

In addition, the study also showed that a statistical significant relationship does exist between physical facilities and effective learning in secondary schools in the Delta Central Senatorial District, while a statistical significant relationship does exist between availability of physical facilities and the quality of effective learning in secondary schools in Delta Central. Conclusively, a statistical significant relationship does exist between lacking or insufficient physical facilities and effective learning in secondary schools in the Delta Central Senatorial District. To this effect Yangambi (2023) asserted that adequate school infrastructure is a prerequisite and a must have before a school can be made available to students and that administrators should recognize the value of this before placing the entire blame for students' poor performance in the classroom and in daily life on the shoulders of principals and teachers.

CONCLUSION

The research concludes that a statistical significant relationship does exist between physical facilities and effective learning in secondary schools in the Delta Central Senatorial District, while a statistical significant relationship does exist between availability of physical facilities and the quality of effective learning in secondary schools in Delta Central. Conclusively, a statistical significant relationship does

exist between lacking or insufficient physical facilities and effective learning in secondary schools in the Delta Central Senatorial District. Thus the academic success of students is significantly impacted through the availability of physical amenities.

RECOMMENDATIONS

The study's findings and conclusion has led the researcher to make the following recommendations;

1. The Delta State Ministry of Education and related stakeholders should prioritize consistent investment in the development and maintenance of physical facilities in secondary schools.
2. Educational policymakers should develop and enforce policies that mandate a minimum standard for physical facilities in all secondary schools. A monitoring body should be established to ensure compliance and address gaps in physical infrastructure across public secondary schools in Delta Central Senatorial District.
3. Schools should partner with communities, NGOs, and private sectors to mobilize additional resources for the improvement of physical amenities.

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