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FUNCTIONALITY OF SCHOOL PLANT FACILITIES AND INFLUENCE ON SECONDARY SCHOOL STUDENTS' ACADEMIC PERFORMANCE IN DELTA STATE

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ABSTRACT
This study investigated the Situation and Functionality of School Plant Facilities and their Influence on Secondary School Students' Academic Performance in Delta State. Four research questions guided the study. The study adopted a descriptive survey research design. The study population comprised 15,531 teachers in secondary schools within 471 public secondary schools in Delta State. The sample for this study consisted of 777 teachers in 236 public secondary schools within 13 Local Government Areas (LGAs) of Delta State selected using the multi-stage sampling technique of the stratified random sampling technique and proportionate random sampling technique. The instrument for data collection was a self-structured questionnaire by the researcher, containing 41 items and titled: Functionality and Influence of School Plant Facilities on Secondary School Students' Academic Performance Questionnaire (FISPFSSSAPQ). The questionnaire was validated by two experts from Educational Foundations Department (Educational Management expert) and one Measurement and Evaluation expert, from Federal College of Education (Technical) Asaba, Delta State. Reliability of the instrument was established through a pilot-test. Data were analyzed using mean and standard deviation statistics. Findings of the study revealed among others that the electronic school plant facilities, instructional school plant facilities, and infrastructural school plant facilities were not functional in order to make significant high influence and improve students' academic performance in secondary schools in Delta State. The non-functionality of all the various school plant facilities had low influence on students' academic performance. Based on these findings, recommendations were made and among them included that the principals should prioritize efforts through adequate financial support from both State government and external agencies to ensure equitable access to functional electronic resources such as computers and internet connectivity, among others, for all students. This could involve securing funding for technology upgrades, implementing mobile computing initiatives, regular facility maintenance and partnering with community organizations in order to improve their functionality which has significant positive influence on secondary school students' academic performance.

Keywords: *Academic, Facilities, Functionality, Influence, Performance, Plant, School, Students*

Introduction

Education helps an individual to develop appropriate skills, mental, physical and social abilities and competencies that empowers the individual to live in and contribute to the society's development. Education maximizes the creative potentials and skills of the individual for self-fulfillment, and the general development of the

society. According to the Federal Republic of Nigeria (FRN: 2014), education is an aggregate tool for human capacity development and promotion of a progressive society. Education is therefore, vital for development of an individual into a morally, sound, patriotic and effective citizen. Thus, the relevance of education to the Nigerian society cannot be overemphasized. Education is crucial for poverty reduction, employment generation and wealth creative. It is important for socio-economic development, and for inculcation into individuals' spirit of patriotism, national consciousness, values and national unity (Federal Republic of Nigeria - FRN: 2014). Given the relevance of education to the Nigerian society, this has equally necessitated the establishment of various educational programmes into the education system in which secondary education is inclusive (FRN: 2014). Secondary education which is the main focus of the present study, prepares students for higher or tertiary education. It is received after primary education before higher education. Secondary education is the bridge between primary and tertiary levels of education, which prepares students for the world of work. Secondary education has been established to achieve several goals and objectives as indicated by Federal Republic of Nigeria (FRN: 2014) in the National Policy on Education (NPE). And achievement of these goals and objectives demands that functional education to be highly promoted at the secondary schools through effective utilization of functional school plant facilities. According to Agi and Uba (2020), this means that the quality of teaching and learning provided in the secondary schools must be supported using functional school facilities which is geared towards achieving the goals and objectives of secondary education. The underlying principle here is that the secondary schools should be able to provide quality education to all those who can benefit from it, as the worth of any educational system lies in its capability to continuously serve its society better and remain relevant (Hoop, 2010). Babalola cited in Agi and Uba (2020) stated that quality education is measured by the extent to which the training received from an institution enables the recipient to think clearly, independently and analytically to solve relevant societal problems in any given environment. A quality education in this submission expects an educational system which a person has passed through to affect the attitude, aspiration and action of such beneficiary. Nwana cited in Agi and Uba (2020) declared that quality in education alludes to the size of functional resources in form of assets, equipment, offices, educators and students and the yields of the institutions in terms of their items that are worthy, alluring and productive from the point of view of the stakeholders. One of the fundamental conditions for effective realization of school organizational goals is through the school plant facilities whose functionality counts in order to positively and highly influence students' academic performance.

Students' academic performance is among one of the important and major factors that contribute to their academic achievements in the secondary schools, successes in their chosen work careers and the realization of their goals and dreams in life. Academic Performance (AP) in school as observed by Adamu and Menchak (2020) therefore, is evaluated in a number of ways. For instance, students demonstrate their knowledge by taking written and oral continuous assessments tests or examination, performing presentations, turning in home work and participating in class activities and group discussions. Academic performance of secondary school students is commonly measured by examination or continuous assessment but there is no general agreement on how it is best tested or which aspects are most important. The academic performance of students could be greatly affected by some factor which includes incessant use of school facilities that are functional (Attah, Baba & Audu, 2016). Idoko, Muyiwa and Agoha (2015) discussed that parents at the different levels of education care a lot about their children's and wards academic performances because they believe that good academic result will provide lucrative careers with

adequate job security. Amongin (2017) opined that the measurement of academic performance, particularly of high school diploma students continues to be a controversial topic among policymakers, measurement experts and educators. Measuring students' academic performance thus, will occur at multiple levels and serves multiple purposes. For example, classroom teachers often conduct formative and summative tests to evaluate student mastery of course content and provide grades to student's parents. State tests are designed to measure progress at the school or school district level in particular, gradation tests are used to determine whether a student has mastered the minimum content and competencies required to receive a high school diploma, each of these kinds of assessments engenders significant questions related to test design, types of decisions supported by the results, alternative assessments, and accommodations. Although this is a time of change in the educational arena, within this evolving accountability environment, it is crucial to understand the progress of all students, including the factors that contribute to their positive academic performance (Amongin, 2017). From all these explanations, it shows that positive and high improvement in students' academic performance could be sustained through the influence of school plant facilities whose functionality also matters.

School plant facilities as described within this study includes all physical facilities, infrastructural facilities, instructional facilities, printed facilities and electronic facilities utilized in the school to support teaching and learning so as to improve students' academic performance. School plant facilities as defined by Schools exist to provide manpower development in order to serve socio-economic and political needs of the ever-changing society. Chanda, Phiri and Nkosha (2013) described school plant facilities as teaching materials or aids used by the trainer which could be a teacher in order to help him/her in teaching his/her lesson effectively. Manson and Nor (2011) described school plant facilities as materials, equipment, resources, infrastructure and direct services to students and teachers which support the school curriculum, contribute to the development of life-long learners and promotes teachers effectiveness. They are also the physical, material and financial inputs in the teaching-learning process. Hence, schools cannot operate meaningfully without functional school plant facilities. School facilities are germane to effective learning and academic performance of students. Hallak cited in Onyebuenyi, Onovo, Ewe and Njoku (2022) identified school plant facilities as the main factor contributing to academic achievement in the school system. They include the school buildings, classroom, libraries, laboratories and recreational equipment, among others. Agi and Uba (2020) posited that school facilities can be categorized into groups of; material, physical and financial resources in the teaching learning process. They are integral to the instructive procedure since they assume a significant role in the accomplishment of instructive objectives and targets since they encourage educators' work and quicken learning with respect to the understudy. Scholars such as Adebule and Ayoola (2015), Burton (2016), Chapelle and Sauro (2017), Loertscher and Woolls (2016), Majid (2014), Nzeneri (2010) and Sallis, McKenzie and Beets (2015) grouped the school plant facilities into three various categories of electronic school facilities, instructional school facilities and infrastructural school facilities.

The electronic school plant facilities are those technological, electronic and digital devices which can be operated using electricity. Most of them are usually supported by the use of batteries (Nzeneri, 2010). Examples of these electronic facilities include technologies such as television, computers, laptops, desktops, tablets, radio cassette, DVD player, CD player, printer, duplicating machines, smart phones, among others. Electronic facilities also include devices such as air conditioners, electrical fans, typewriters, generating sets, vehicles like school buses and other electrical fittings. The electronic facilities include

technology-integrated spaces having facilities equipped with modern technologies, such as computer labs and smart classrooms, to enhance digital literacy and provide a platform for interactive and engaging learning experiences. All these electronic facilities can be used to improve students' academic performance in school. The instructional facilities are another type of plant facility which are those teaching aids, instructional devices that aid teaching and learning in the classroom. They include real objects, printed materials such as textbooks, pen, books, journals, dictionaries, calculators, charts, graphs including graphic materials. White boards and chalkboards are also part of instructional facilities. Instructional facilities however are learning tools, kits, devices, resources, objects or equipment that support teaching and learning in the classroom. According to Adebule and Ayoola (2015), Asiyai (2012) and Majid (2014), instructional materials are any kind of aids or resources that assist in the teaching and learning activities, which include reference books, counting equipment like blocks, stones or beads, natural displays models, charts, pictures, play materials, games, and audio-visual equipment. Others may include educative wall charts, wall pictures, building blocks, toys, computers, workshops and laboratory tools and specimens, textbooks, jigsaw puzzles, numbers, letters, colours and shapes, They are also didactic material-things which are supposed to make learning and teaching possible, while Johnson cited in Majid (2014) describes instructional facilities as the collection and selection of resources (mechanical or otherwise) from available resources which are applied and integrated into a systematic process of teaching to make learning effective. They are materials, objects or devices, which help the teacher to make a lesson more understandable to the learner. Instructional facilities are therefore, resources utilized by educators and teachers both inside and outside the classroom in order to aid learning. Instructional facilities include; textbooks, syllabuses, course books, preschool guidelines, periodicals, encyclopedia, newspapers and magazines, file records and minutes of meetings. They can provide a good resource for teachers to structure their schemes of work, lesson plans and notes. Princeton University (2011) identified these materials as books, maps, journals, photos, newspapers and so on which are used to improve students' academic performance in school.

Infrastructural facilities as another types of school plant facilities include those physical facilities such as buildings, classrooms, furniture such as desks and seats, sports field, sports facilities, administrative offices and other equipment used in the school to support students' learning. Infrastructural facilities are physical learning environment within a school, including classrooms, libraries, laboratories, water supply, accessories which include playgrounds, lawns, parks garden and farm. and other spaces, contributes significantly to the overall educational experience. Examples of the infrastructural facilities as indicated by Burton (2016), Chapelle and Sauro (2017), Loertscher and Woolls (2016), Sallis, McKenzie and Beets (2015), include: sites, auditoriums, classrooms, offices, libraries, buildings for workshops, science laboratories, art laboratories, inclusive facilities, media centers, or learning commons, art studio, cafeterias, outdoor learning spaces, health clinics, inclusive among others. All these facilities are important for improving students' academic performance. Hallak cited in Agi and Uba (2020) emphasized that the use of relevant educational or school resources contributed to quality assurance and that unattractive school buildings, crowded classrooms, non-availability of playing grounds and surroundings that have no aesthetic beauty can contribute to poor quality in education which affects students' academic performance. School plant facilities are therefore, integral to providing a comprehensive setting that supports the holistic development of students, addressing not only academic needs but also students' social, emotional, and physical aspects (Driessen & Smit, 2016). They are important towards promoting students'

academic performance. Given the importance of school facilities, school administrators should ensure that they are always kept functional and always in good condition for attainment of educational goals and instructional objectives which includes the high improvement of students' academic performance. From all the foregoing discussions, the functionality and influence of school facilities are key factors which can positively and negatively influence students' academic performances and academic successes in secondary schools.

Functionality of school plant facilities according to McNamara and Kirakowski (2014), can be defined as determining what features should be provided by the device, as well as, evaluating device performance, reliability, and durability. Functionality also determine the effectiveness and durability of the school plant facilities in order to support teachers' attainment of instructional goals and objectives in the classroom. The analysis of some user comments on facilities as further observed by McNamara and Kirakowski showcased that, in general, respondents appreciated the functions provided by electronic devices, but they were intolerant of unnecessary functions of some devices. The comments also indicated that users felt some devices lacked certain functions that they would find useful. Over the years, the functionality of many school plant facilities have been a matter of great concern coupled with the fact that they affect academic performance of students. Akomolafe and Adesua (2016) stated in their study that it seems that the functionality of most school plant facilities have dwindled over the years, perhaps due to increase in school enrolment rate which had led to population explosion in public schools. It has equally been observed that school plant facilities are essential tools to facilitate and stimulate learning programmes; and teachers need them in an ideal working environment. Experience shows that if school facilities are available and functional, students tend to have interest in learning; this will invariably lead to high academic performance. A close observation of the performance of secondary school students as observed by Akomolafe and Adesua (2016) perhaps could be traced to lack of functionality of many physical facilities and a motivating learning environment. Most schools seem to lack the necessary functional facilities that could enhance effective teaching and learning as a result little is expected from students in terms of their academic performance. In a situation where students are not having access to normal and functional school plant facilities like library equipment and inadequate functional seats in the classroom, it is observed that these could contribute to low performance of students. The functionality of school plant facilities could either have positive or negative coupled with high or low influence on students' academic performance.

Solis (2010) noted that influence can be viewed as the ability to cause desirable and measurable actions and outcomes. The IGI Global Partnership (2022) described influence *as t*he ability or power to inspire or motivate an individual to act in one way or the other. It is the ability or capacity to have an effect or positive impact on a person. The capacity to affect human action, behaviour, and opinion; impact or effect on something or someone. The action or fact of being taken account of in the course of decision-making (IGI Global Partnership, 2022*).* Scholars like Ikegbusi (2018) and Ikegbusi, Manafa and Iheanacho (2022) have indicated that school plant facilities can have much influence on students' academic performance. These scholars confirmed that school facilities such as library, school building, ICT, and laboratory had influence on the academic achievement of secondary school students. Apart from protecting the students from the sun, rain, heat and cold, school building represent learning environment which has great impact on the comfort, safety and performance of the students (Okechukwu & Oboshi, 2021). According to Limon (2016), school plant facilities form one of the potent factors that contribute to academic achievement in the school system. Otchere and Afara (2019) asserted that there is a

strong and positive influence between quality of school facilities and students' achievement in schools. With all the above discussions, there is need to focus strictly on the important matter of the functionality of school plant facilities and their influence on secondary school students' academic performance especially in Delta State. Given the fact that school plant facilities in many secondary schools in Delta State are in deplorable state and faced with such challenges as shortage and inadequate facilities, many seems to be outdated, old and in bad shape, which could inhibit their functionality. In Delta State, the functionality of school plant facilities and their influence needs to be understudies given the poor academic performance of many students in internal and external examinations. Observations from many of the public or government-owned secondary schools, showcases that the functionality of many of the various school plant facilities and their influence on students' academic performance are questionable and needs to be addressed. The functionality of school plant facilities like the electronic plant facilities, physical and infrastructural plant facilities, and instructional plant facilities especially in the public secondary schools today appears to be of great concern to education stakeholders such as the educators, teachers and school administrators. Previous empirical studies like those of Ahmodu and Salaam (2023), Brightone (2017), Kanayochukwu, Dogo, Akinwumi, Oluwafemi, Ajibuah, Mwanret and Queen (2020), Khan (2016), Ikegbusi, Manafa and Iheanacho (2022), Sabitu, Babatunde and Oluwo (2012), Zainuddin and Subri (2017) have been conducted in areas of school plant facilities and their influence of students' academic performance. But these studies have their own mix, findings and shortcomings which makes them differ from the present study. Their differences with the present study lies within their contents, theoretical frameworks and methodology, in areas of the research design, study area, location, population, sample and sampling techniques, method of data analysis, among others. Not many of these empirical studies focused on the functionality of school plant facilities and their influence on secondary school students' academic performance and this, marks a great different between the present study and these previous studies, which have warranted the present study. The present study however, concentrated on investigating functionality of school plant facilities and influence on secondary school students' academic performance in Delta State.

Statement of the Problem

The importance of school plant facilities which include the electronic plant facilities, instructional plant facilities and infrastructural plant facilities towards enhancing students' academic performance in the secondary schools can never be overemphasized. Given the great importance of these school plant facilities, yet most secondary schools including those in Delta State seem not to employ and avail students with the appropriate and functional facilities in the teaching-learning activities in order to impact positively students' academic performance. This is evident in the high level of failure recorded in both internal and external examinations in most of the secondary schools in Delta State. Thus, the researchers wonder whether teachers do not utilize sufficient functional school plant facilities in order to promote effective teaching and learning? Or, whether the available school plant facilities are function in order to influence students' academic performance? The inability of teachers to consistently and efficiently utilize functional school plant facilities raises a lot of questions concerning the functionality of school plant facilities and influence on students' academic performance in the secondary schools. Thus, the need to determine functionality of school plant facilities and their influence on secondary school students' academic performance in Delta State which is both the problem and gap to be filled in this study. In order to fill the knowledge gap and for quality education to triumph, the problem which concerns examining functionality of school plant facilities and influence on secondary school students' academic

performance in Delta State needs to be appropriately investigated.

Research Questions

The following research questions guided the present study:

1. What is the functionality of electronic school plant facilities on secondary school students' academic performance in Delta State?
2. What is the functionality of instructional school plant facilities on secondary school students' academic performance in Delta State?
3. What is the functionality of infrastructural school plant facilities on secondary school students' academic performance in Delta State?
4. What is the influence of the functionality of school plant facilities on secondary school students' academic performance in Delta State?

Research Method

The study adopted a descriptive survey research design. This study employed the design in order to enable the researcher gather information from the sample of the population of the study (that is: teachers only) and thereafter analyze data gathered as they exist in determining functionality of school plant facilities and influence on secondary school students' academic performance in Delta State. The study population comprised a total of 15,531 teachers within 471 public secondary schools in Delta State (Source: Planning, Research and Statistics Department, Post Primary Education Board – PPEB, Delta State, 2022). Justification for choosing only teachers is because, they are in a better position to disclose functionality of school plant facilities and influence on secondary school students' academic performance in Delta State in the area of study. The sample for this study constituted a total of 777 teachers from 236 public secondary schools within 13 Local Government Area (LGA) of Delta State selected using the multi-stage sampling technique of the stratified random sampling technique and proportionate random sampling technique. Five percent (that is, 5%) of the entire teacher population in the public secondary school were selected as sample for the study using the stratified random sampling technique; while the LGAs and public secondary schools were selected at fifty percent (50%) using the proportionate random sampling technique. The instrument for data collection was a self-structured questionnaire by the researcher, containing 41 items and titled: Functionality and Influence of School Plant Facilities on Secondary School Students' Academic Performance Questionnaire (FISPFSSSAPQ). The questionnaire was arranged into four clusters. The response for each of the items in the research instrument were structured on a 4-point scale and weighted as follows: (a) Very Functional (VF) – 4, (b) Functional (F) – 3, (c) Fairly Functional (FF) – 2, and Not Functional (NF) – 1, were used for answering research questions 1-3. And response items as: (a) Very High Influence (VHI) – 4, (b) High Influence (HI) – 3, (c) Low Influence (LI) – 2, and Very Low Influence (VLI) – 1, were used for answering research question 4.

The questionnaire was validated by two experts from Educational Foundations Department (Educational Management expert) and one Measurement and Evaluation expert, from Federal College of Education (Technical) Asaba, Delta State. These experts were requested to examine the items in terms of the appropriateness of language, adequacy of questions in relation to the purpose of the study and research questions. The experts reviewed and affirmed the face and content validation. Regarding the content items, these experts from various departments in the College made some observations and corrections on vague and double-barreled items. Some items were removed and new ones added based on the comments of the experts. The researchers corrected the questionnaire following the directives of the experts before the final printing of the instrument. Reliability of the instrument was established through a pilot-test. This method involved distributing 15 copies of the questionnaire to 15 teachers from 3 public secondary schools in Delta

State, which were not part of the study. This was to avoid the respondents being biased when the final instrument was distributed. The researchers who personally administered the questionnaire also waited for them to complete the questionnaire before retrieving them. Copies of the questionnaire were collated and their scores calculated using the Cronbach Alpha formula. Results of the distributed copies of the questionnaire yielded a reliability coefficient of 0.67, 0.81, 0.89 and 0.88 respectively for each cluster, amounting to a total reliability value of 0.81. The method of using Cronbach Alpha formula to calculate scores was adopted in order to ensure the internal consistency for reliability of research instrument which was arranged in four clusters. The result indicated the internal consistency of the instrument, which is considered satisfactory and suitable for the study. Therefore, the reliability of the questionnaire showed that the instrument was reliable, dependable and likewise trust-worthy. Nworgu (2015) identified that the Cronbach Alpha statistical method refers to the degree of consistency with which the item of an instrument measures a given trait and provides a measure of how homogeneous or otherwise the items are. Copies of the questionnaire were administered to the respondents on face-to-face basis by the researcher with the help of five (5) research assistants who were NCE students from Federal College of Education (Technical) Asaba. These research assistants were given briefings concerning the purpose of the study in order to administer and retrieve the filled copies of questionnaire from the teachers. Both the researchers and research assistants took permission from the principals before communicating with the teachers. The respondents filled all the questionnaire presented to them immediately on the spot. Distributing all printed copies of the questionnaires took the researchers and research assistants a period of one week after which they were collated for analysis. A total of 777 copies of the questionnaire were distributed to the respondents and all copies were retrieved as well. The rate of return was 100%. Data were analyzed using mean and standard deviation statistics. All the copies of the questionnaire were collated using Mean scores, Grand mean and Standard deviation for answering research questions 1-4. The decision rule for the research questions was based on the mean score, which was benchmarked on 2.50. Only mean scores which rated 2.50 and above was regarded as an indication of 'Functional' and 'High Influence' in agreement with the statement. While mean scores that rated 2.49 and below was regarded as an indication of 'Not Functional' and 'Low Influence' in disagreement with the statement. Data was also coded into the SPSS (Statistical Software Package for Social Sciences) for computer analysis.

Research Question 1: What is the functionality of electronic school plant facilities on secondary school students' academic performance in Delta State?

Table 1: Mean Rating and SD of Teachers on the Functionality of Electronic School Plant Facilities on Secondary School Students' Academic Performance in Delta State **N** = 777 Teachers

S/N	Statements: Give your opinion concerning functionality of the under listed electronic school plant facilities on students' academic performance in your school	VF	F	FF	NF	$\bar{X}$	SD	Decision
1.	Television set	22	190	255	310	1.90	0.86	Not Functional
2.	Desktop computers	87	137	216	337	1.97	1.03	Not Functional
3.	Tablets with Internet connectivity	61	136	288	292	1.96	0.93	Not Functional
4.	Radio cassette player	54	114	244	365	1.82	0.93	Not Functional
5.	DVD player	68	164	270	275	2.03	0.96	Not Functional

6.	Smart phones	211	303	100	163	2.72	1.08	Functional
7.	Printers	87	133	245	312	1.99	1.01	Not Functional
8.	Duplicating machine	74	112	315	276	1.98	0.94	Not Functional
9.	Personal laptops	50	183	277	267	2.02	0.91	Not Functional
10.	CD player	66	162	211	338	1.94	0.99	Not Functional
11.	Electrical fans together with other electrical fittings	55	188	243	291	2.01	0.95	Not Functional
12.	Generator set	64	167	259	287	2.01	0.96	Not Functional
13.	School bus	57	139	280	301	1.94	0.93	Not Functional
14.	Projectors	58	108	283	328	1.87	0.92	Not Functional
	Grand Mean and Standard Deviation =					**2.01**	**0.98**	Not Functional

Analysis of result as presented in Table 1 from the respondents' (teachers) responses revealed that only item 6 was rated above the acceptable mean score of 2.50 by the teachers in agreement with the statement, showing that only the teachers smart phones was functional. Other items from 1 to 5, and 7 to 14 were rated below 2.50 by the teachers in disagreement with the statements, showing that these items were not functional. The grand mean and standard deviation of 2.01 and 0.98 showed the respondents high negative reactions concerning the functionality of electronic school plant facilities on secondary school students' academic performance in Delta State. This result further indicated that the electronic school plant facilities was not functional.

Research Question 2: What is the functionality of instructional school plant facilities on secondary school students' academic performance in Delta State?

Table 2: Mean Rating and SD of Teachers on the Functionality of Instructional School Plant Facilities on Secondary School Students' Academic Performance in Delta State N = 777 Teachers

S/N	Statements: Give your opinion concerning functionality of the under listed instructional school plant facilities on students' academic performance in your school	VF	F	FF	NF	$\bar{X}$	SD	Decision
15.	Nature corner with real objects	107	213	285	172	2.33	0.97	Not Functional
16.	Printed materials which includes reference books, updated textbooks of various subjects, journals, pamphlet, dictionaries, syllabuses, periodicals, encyclopedia, newspapers, fiction with nonfiction books, booklets, workbook, teacher's guide, handbooks, word-processed documents	213	344	101	119	2.84	1.00	Functional
17.	Charts, maps, pictures, cartoons, graphs including graphic materials	191	255	194	137	2.64	1.04	Functional
18.	Natural displays models, two/three dimensional objects, jigsaw puzzles, shapes	109	227	319	122	2.42	0.92	Not Functional
19.	White boards with chalkboards/markers including flannel boards	211	299	161	106	2.79	0.99	Functional
20.	Schemes of work, lesson plans including lesson notes	322	287	74	94	3.08	0.99	Functional
21.	Counting equipment like blocks, stones or beads, calculators	188	121	255	213	2.37	1.12	Not Functional
22.	Educative wall charts, wall pictures, posters	174	155	250	198	2.39	1.09	Not Functional
23.	Workshop tools with other kits, equipment	136	124	247	270	2.16	1.09	Not Functional
24.	Science laboratory specimens with kits, chemicals	125	130	299	223	2.20	1.03	Not Functional
25.	Equipment including tools for vocational subjects	143	167	204	263	2.31	1.02	Not Functional
26.	Materials, tools for arts subjects	133	141	273	230	2.23	1.05	Not Functional
	Grand Mean and Standard Deviation =					**2.47**	**1.07**	Not Functional

Analysis of result as presented in Table 2 from the respondents' (teachers) responses revealed that items 16, 17, 19 and 20 were rated above the acceptable mean score of 2.50 by the teachers in agreement with the statement, showing that these instructional school plant facilities which includes: printed materials such as charts, maps, graphs, graphic materials, whiteboard/chalkboards with marks/chalks including flannel boards, scheme of work, lesson plans and notes were functional. Other items from 15, 18 and 21 to 26 were rated below 2.50 by the teachers in disagreement with the statements, showing that these instructional school plant facilities were not functional. The grand mean and standard deviation of 2.47 and 1.07 showed the respondents high negative reactions concerning the functionality of instructional school plant facilities on secondary school students' academic performance in Delta State. This result further indicated that the instructional school plant facilities was not functional.

Research Question 3: What is the functionality of infrastructural school plant facilities on secondary school students' academic performance in Delta State?

Table 3: Mean Rating and SD of Teachers on the Functionality of Infrastructural School Plant Facilities on Secondary School Students' Academic Performance in Delta State N = 777 Teachers

S/N	Statements: Give your opinion concerning functionality of the under listed infrastructural school plant facilities on students' academic performance in your school	VF	F	FF	NF	$\bar{X}$	SD	Decision
27.	Well-equipped libraries	102	186	255	234	2.20	1.01	Not Functional
28.	Art studio	109	129	278	261	2.11	1.03	Not Functional
29.	Furniture such as desks and seats	121	141	277	238	2.19	1.04	Not Functional
30.	Well-constructed buildings for science laboratories, technical workshop, art laboratories/studio, computer laboratories with Internet connectivity	113	130	252	282	2.10	1.05	Not Functional
31.	Well-constructed classrooms including auditoriums	106	150	320	201	2.21	0.98	Not Functional
32.	Recreational accessories such as playgrounds, lawns, parks, garden, farm. and other outdoor learning spaces	103	152	234	288	2.09	1.04	Not Functional
33.	Music rooms	124	139	248	266	2.16	1.07	Not Functional
34.	Language labs	107	149	308	213	2.19	0.99	Not Functional
35.	Inclusive facilities	110	156	271	240	2.18	1.02	Not Functional
36.	School health clinics	121	144	219	293	2.12	1.08	Not Functional
37.	Sports field for sports activities	111	138	246	282	2.10	1.05	Not Functional
38.	Comfortable offices	124	147	226	280	2.15	1.08	Not Functional
	Grand Mean and Standard Deviation =					**2.15**	**1.04**	Not Functional

Analysis of result as presented in Table 3 from the respondents' (teachers) responses revealed that none of the items were rated above the acceptable mean score of 2.50 by the teachers in agreement with the statements in order to indicate that the infrastructural school plant facilities was functional. All the items from 27 to 38 were rated below 2.50 by the teachers in disagreement with the statements, showing that these items were not functional. The grand mean and standard deviation of 2.15 and 1.04 showed the respondents high negative reactions concerning the situation of infrastructural school plant facilities on secondary school students' academic performance in Delta State. This result

further indicated that the infrastructural school plant facilities was not functional.

Research Question 4: What is the influence of the functionality of school plant facilities on secondary school students' academic performance in Delta State?

Table 4: Mean Rating and SD of Teachers on the Influence of the Functionality of School Plant Facilities on Secondary School Students' Academic Performance in Delta State N = 777 Teachers

S/N	Statements: Give your opinion concerning influence of functionality of the under listed school plant facilities on students' academic performance in your school	VHI	HI	LI	VLI	$\bar{X}$	SD	Decision
39.	Electronic facilities which includes audio-visuals, multimedia, mechanical devices, among others	63	144	281	289	1.98	0.94	**Low Influence**
40.	Instructional facilities which includes real objects, printed resources, dimensional objects, specimens, workshop tools, laboratory tools, graphic materials, and so on	126	157	278	216	2.25	1.03	**Low Influence**
41.	Infrastructural facilities which includes building for offices, library, workshops, science laboratory, language laboratory, music lab, computer lab, art studio, vocational workshops, recreational accessories, sport facilities, furniture, among others	144	173	249	211	2.32	1.06	**Low Influence**
	Grand Mean and Standard Deviation =					**2.18**	**1.02**	**Low Influence**

Analysis of result as presented in Table 4 from the respondents' (teachers) responses revealed that none of the items from 80 to 82 were rated above the acceptable mean score of 2.50 by the teachers in agreement with the statements, in order to show that the non-functionality of these items, that is, the school plant facilities had high influence on students' academic performance. All the items from 39 to 41 were rated below 2.50 by the teachers in disagreement with the statements, indicating that the non-functionality of these items, that is, the school plant facilities had low influence on students' academic performance. This shows that the non-functionality of school plant facilities poorly influenced students' academic performance. The grand mean and standard deviation of 2.18 and 1.02 showed the respondents negative reactions concerning the influence of the functionality of school plant facilities on secondary school students' academic performance in Delta State. This result further indicated a low influence of functionality of existing school plant facilities on secondary school students' academic performance in Delta State. The means that the non-functionality of the school plant facilities poorly influenced secondary school students' academic performance in Delta State; and this was a negative influence.

Discussion of Findings

Findings of this study generally indicated that the school plant facilities investigated, which included: the electronic, instructional and infrastructural school plant facilities, were not functional in order to make significant influence or improve students' academic performance in secondary schools in Delta State. The non-functionality of these school plant facilities had low influence on students' academic performance. They poorly influenced students' academic performance in secondary schools in Delta State. The findings have been further discussed in different sub-headings of:

This finding indicated that there existed a non-functionality of electronic school plant facilities on secondary school students' academic performance in Delta State. This means that the

electronic school plant facilities were not functional to make positive impact on students' academic performance. Only the teachers' smart phones were functional and this could have been because many of the teachers had their personal smart phones which they used in school. Additionally, this finding discovered that the television set, desktop computers, tablets with internet connectivity, radio cassette player, DVD player, printers, duplicating machine, personal laptops, CD player, electrical fans together with other electrical fittings, generator set, school bus, and projectors; were all not functional for positive influence on students' academic performance. This finding agrees and is equally in line with Asiyai (2012) study whose findings revealed that the maintenance carried out on school facilities were inadequate for majority of the facilities in order to make them effective and functional. Contrastingly, the present study finding does not concur with Kanayochukwu, Dogo, Akinwumi, Oluwafemi, Ajibuah, Mwanret and Queen (2020) study which found out that the conditions of educational facilities were not in disarray and they were properly maintained to make them functional and effective for teaching.

This finding indicated that there existed a non-functionality of instructional school plant facilities on secondary school students' academic performance in Delta State. This means that the instructional school plant facilities were not functional to have significant influence students' academic performance. Only the printed instructional plant facilities such as: reference books, updated textbooks of various subjects, journals, pamphlet, dictionaries, syllabuses, periodicals, encyclopedia, newspapers, fiction with non-fiction books, booklets, workbook, teacher's guide, handbooks, word-processed documents which supports the teacher's teaching in the classroom, charts, maps, pictures, cartoons, graphs including graphic materials, white boards with chalkboards/markers including flannel boards, and schemes of work, lesson plans including lesson notes; were all functional to positively influence students' academic performance. This is because teachers constantly made use of this instructional facilities in the school. Other in structural school plant facilities such as nature corner with real objects, natural displays models, two/three dimensional objects, jigsaw puzzles, shapes, counting equipment like blocks, stones or beads, calculators, educative wall charts, wall pictures, posters, workshop tools with other kits, equipment, science laboratory specimens with kits, chemicals, equipment including tools for vocational subjects, and materials, tools for arts subjects; were all not functional in order to positively influence students. This finding corroborates and agrees with Sabitu, Babatunde and Oluwo (2012) whose study found out and accounted that the high rate of poor academic performance of Nigerian students in their examinations is not limited to public schools alone but also to private schools and the reasons range from poor teaching personnel and non-availability of school instructional facilities with their worse conditions and less functionality. The same view was given by Brightone (2017) study in Mtwara region district of Newala which examined factors leading to students' poor performance and found out that shortage and poor functionality of teaching and learning materials and physical facilities, were among the main factors that contributed to students' poor academic performance.

This finding indicated that there existed a non-functionality of infrastructural school plant facilities on secondary school students' academic performance in Delta State. This means that the infrastructural school plant facilities were not functional to have a high positive influence on students' academic performance. The finding further revealed that such infrastructural school plant facilities as: well-equipped libraries, art studio, furniture such as desks and seats, well-constructed buildings for science laboratories, technical workshop, art laboratories/studio, computer laboratories with internet connectivity, well-constructed classrooms including auditoriums, recreational accessories such as playgrounds, lawns,

parks, garden, farm. and other outdoor learning spaces, music rooms, language labs, inclusive facilities, school health clinics, sports field for sports activities, and comfortable offices; were not functional to positively influence students' academic performance. This finding agrees and dose not deviate from Ajayi's study of 2007 cited in Khan (2016) which confirmed that people have been complaining about poor functional administrative space in some schools. The finding also showed that spaces of convenience such as toilets, corridors and so on in some of the schools were not properly planned and functional. This is similar to the state of many other infrastructural facilities in the schools which were found not functional. Concurring with Khan (2016) study, Ikegbusi, Manafa and Iheanacho (2022) study confirmed that school facilities were very essential for the achievement of students' quality academic performance in any school. It was further discovered in their study that those schools which failed to provide quality and functional educational facilities in their schools have always had poor academic achievement of the students.

This finding indicated that there was a low influence of the functionality of the existing school plant facilities on secondary school students' academic performance in Delta State. The non-functionality of the school plant facilities such as the electronic plant facilities, instructional plant facilities, and infrastructural plant facilities poorly influenced secondary school students' academic performance in Delta State; and this had a negative influence. This finding deviates from the finding of Zainuddin and Subri (2017) which studied the influence of school facilities on secondary school students' performance in Klang District in Malaysia and found out that students from schools with enough physical facilities which are in good condition coupled with being functional would highly and positively influence students to perform well in learning process and examination. The study further confirmed that the school facilities would improve and influence students' academic achievement. The finding of this present study deviates from Ahmodu and Salaam (2023) study which found out that the levels of functionality of the school facilities and students' academic performance were relatively high. The study also revealed that library and laboratory facilities were positively significant to students' academic performance.

Conclusion

This study concluded that the electronic school plant facilities, instructional school plant facilities, and infrastructural school plant facilities were not functional in order to make significant high influence and improve students' academic performance in secondary schools in Delta State. This non-functionality of all the various school plant facilities had low influence on students' academic performance. They poorly influenced students' academic performance in secondary schools in Delta State. To resolve all problems concerning poor students' academic performance in secondary schools in Delta State, functionality of various electronic, instructional and infrastructural school plant facilities should be given priority attention.

Recommendations

Based on the findings of this study, the following recommendations were proffered;

1. Principals should prioritize efforts through adequate financial support from both State government and external agencies to ensure equitable access to functional electronic resources such as computers and internet connectivity, among others, for all students. This could involve securing funding for technology upgrades, implementing mobile computing initiatives, regular facility maintenance and partnering with community organizations in order to improve their functionality which has significant positive influence on secondary school students' academic performance.
2. The Post Primary Education Board (PPEB) should encourage principals and teachers through adequate improvisation, deployment of effective

maintenance strategies, constant professional development opportunities and efficient facility utilization to improve the functionality of instructional school plant facilities which will have positive influence on secondary school students' academic performance in Delta State.

3, Principals should adopt effective maintenance culture that will aid functionality of infrastructural school plant facilities in order to enhance secondary school students' academic performance. With teachers' cooperation, principals should implement regular maintenance schedules and procedures to ensure that infrastructural facilities are well-maintained and safe for students and staff. Allocate sufficient resources for routine inspections, repairs, and upgrades to address any issue relating to the functionality of infrastructural facilities promptly.

4. School-community relationships and partnership should be highly promoted and strengthened in secondary schools in order to assist with functionality of the existing school plant facilities for high influence on secondary school students' academic performance in Delta State. However, principals should seek inputs from stakeholders on infrastructure priorities and also involve them in decision-making processes related to facility planning and improvement projects so as to impact on the functionality of various school facilities for high positive influence on secondary school students' academic performance.

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