Innovations

An Evaluation of Teaching Facilities on Students Academic Performance in Basic Science in Ikere Local Government Area of Ekiti State

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Abstracts: *The study is an evaluation of teaching facilities on students' academic performance in Basic Science in Ikere Local Government Area of Ekiti State, Nigeria. The study examined whether, educational facilities have impact on students' academic performance in Basic Science, also the study find out if teaching facilities are available for teaching Basic Science, and to determine if the teaching facilities are properly managed by school authorities. In view of these, three research hypotheses were formulated. This study was a descriptive research of survey type. 118 respondents were selected for the study simple random sampling technique was used to select five secondary schools for the study. A well structured questionnaire was used for data collection and the data were analyzed using percentage. While chi-square was used to test the hypotheses formulated for the study at 0.05 level of significance. The study revealed that among others that the quality of teaching facilities can significantly impact the academic performance of students. Also Well-equipped teaching facilities, such as laboratories, libraries, audio-visual aids, and technology resources, provide students with hands-on experiences and opportunities to engage with the subject matter more effectively. The study recommended that Government at all levels and private school owners should ensure that modern facilities are available and also ensures the usage to improve academic performance. Most of the facilities available are in poor state of disrepair. Hence, educational planners and school leaders should carryout extensive repairs, renovation, retrofitting and replacement of some major component.*

Keywords: *Teaching Facilities, Academic Performance, Basic Science, Ikere, Local Government*

Introduction

Education, in every human community is an indispensable instrument for human progress, empowerment and effecting national development. This suggests that a nation that lacks sound educational culture and philosophy stands

the risk of decay whereas a nation that sees to the development of its education sector is bond to achieve great success. Schools are established for the purpose of teaching and learning. It is also more important that the teachers are properly accommodated to facilitate the teaching –learning process that go on there. This is the essence of the school plant and facilities. Therefore school facilities are the space interpretation and physical expression of the school curriculum.

Student performance is also referred to as academic performance by Adediwura & Tayo (2017). Academic performance or academic performance is the outcome of education the extent to which a student, teacher or institution has achieved their educational goals. Achievement is commonly measured by examinations or continuous assessment but there is no general agreement on how it is best tested or which aspects are most important.

Student's achievement in Integrated Science cannot be traced to a single factor but by multiplicity of factors such as environment, student attitude, teaching techniques, school facilities, teacher qualification and many more.

According to Harb & El-sharawin (2016) affirmed that there are two types of factors affecting student academic achievement. These are internal and external classroom factors. Internal classroom factors includes, student's competence, class schedules, class size, textbooks, class test results, learning or school facilities, school or class environment, complexity of course materials, teachers role in the class, technology used in the class and examination systems. External ones include extra curricular activities, family problems, and financial problems, social and other problems.

Noble (2016) emphasized student achievement and activities, perceptions of their coping strategies and positive attributions and background characteristics (i.e family income, parent level of education, guidance from parents and number of situation in the home) were indirectly related to their composite scores through academic performance in high school.

Young (2009) held the view that student's performances are tend with the use of library and the level of their parental education. To Hussan (2016), the guidance from the parent and teachers indirectly affects the performance of the student. Socio-economic factors like family income, parent's education, teacher-student ration, presence of trained teacher in school are also factors influencing the performance of the student (Raychauduri, Amivata, Majundar & 2010).

School facilities have been observed as a potent factor to quality education. It importance to the teaching and learning process cannot be over-emphasized. Effective learning can occur through one's interaction with the environment. Environment here refers to the facilities that are available to facilitate students learning outcome or achievement. These facilities include school building, library, laboratory, textbooks, software and hardware of educational technology etc. These facilities goes a long to affect or enhance students performance or achievement. This can be realized when there are qualified teachers to handle the subject and the facilities are available.

According to Oni (2012), facilities constitute a strategic factor in any organizational functioning. This is so because they determine to very large extent the smooth functioning education. He further stated that their availability, adequacy and relevance influence efficiency and high productivity. In his words, Farombi (1998) opined that the wealth of a nation or society could determine the quality of education in that land; emphasizing that a society that is wealthy will establish good schools with qualified teachers and with such, there as well as high academic achievement.

Adesola (2008) found out that the level of available resources is indeed a plus to the teachers and goes a long way to show the level of ingenuity and commitment towards effective delivery of lesson. Akinfolarin (2012) identified facilities as a major contributing factor to academic performance in the school system. Different studies conducted by Ayodele (2016) and Vandiver (2011) showed that a positive relationship exists between availability of facilities and students academic achievement. Writing on the role of facilities in teaching – learning process, Balogun (2012) submitted that no effective science education programme can exist without facilities for teaching. This is because facilities enable learners or students to develop scientific attitude and problem solving skills.

Irrespective of the fact that secondary schools in Ikere local government have manpower and other instructional materials such as laboratories and libraries, the expectation is that these facilities be used effectively by skilled and knowledgeable hands but the reverse is the case in our secondary schools hence the loss of interest in practical subjects by students. Teaching materials such as instructional materials laboratories library road network, pipe borne water, disposal waste bins, helps to facilitates learning and teaching in their own ways. Ensuring the cleanliness of environment and provision of light (electricity) are all geared towards effective and efficient teaching and learning.

More recent research was suggested that Facility maintenance and disrepair rather than structural issues may be more directly related to student academic performance most of the schools in Ikere local government area lack modern facilities and equipment in their schools which as a result hider the effective teaching and learning of Basic Science. In the light of above, the research is set to evaluate the effects of teaching facilities on students academic performance in integrated science.

Research Hypotheses

1. There is no significant relationship between teaching facilities and students academic performance in Basic Science.
2. There is no significant relationship between the availability of teaching facilities and Students academic performance in Basic Science.
3. There is no significant relationship between proper Management of school facilities and academic performance.

Literature Review

Concept of Academic Performance

Academic performance refers to what students achieve in their studies and how they cope with or accomplish different learning experiences given to them by their teachers. Ibrahim (2011) reported that in educational institutions, success is measured by academic performance, or how well a student attains their short or long-term educational goals. Academic performance as opined by Rothstein (2000) refered to successful accomplishment or performance in particular subject area. It is indicated by grades, marks, and scores of descriptive commentaries.

Academic performance is also commonly measured through examination or continual assessment but there is no general agreement on how it is best evaluated or which aspect is more important – procedural knowledge such as skills or declarative knowledge such as facts. Furthermore, there are inconclusive results over which individual factors successfully predict academic performance, elements such as test, anxiety, environment, motivation and emotions require consideration when developing models of school achievement / performance (Ajayi, 2019).

Furthermore, performance of students has for long generated a lot of interest among educators, researchers, government officials, parents, and the students themselves. Many studies have examined the factors that influence students‟ performance in primary, secondary education as well as tertiary level, with the purpose of enhancing learning at these stages and reducing the level of drop-out. Performance of students, in line with Gouch (2019) can generally be referred to as the way and manner students deal with their studies and how they cope with or accomplish different tasks given to them by their teachers. In order words, the ability of the students to study and remember facts and being able to communicate knowledge verbally or down on the paper.

Kobaland & Musek (2001) defined performance on task with measures including comprehension, quality and accuracy of answers of tests, quality and accuracy of problem solving, frequency and quantity of desired outcome, time or rate to solution, time on task level reasoning and critical thinking, creativity, recall and retention and transfer of tasks.

Performance refers to the assessment of the efficiency of pupils in classroom activities and their behavior after the unit of an instruction and that a formal system is designed to measure and evaluate their outcome through constant observation and the pupils‟ behavior. Festus (2011) as cited in Okaiyi (2015), contended that performance appears generally to be the fundamental goal behind every life struggle, but the positive platform has consequential influence of improving the worth of the students and can only be achieved through acquisition of positive learning. According to Anygyaye (2018), performance assessment is the direct, systematic observation of an actual students‟ performance and rating of that performance according to the pre-established performance criteria. This means that performance has given layout

or criteria in which an outcome of an activity may judge students when asked to perform an activity, they are assessed based on the result of their work. Many performance assessments include real life activity that calls for higher order thinking (Anygyaye, 2018).

The performance-based approach to education enables students to use their knowledge and apply skills in realistic situations. It differs from the traditional approach to education in that it strives for mastery of knowledge and skill; it also measures these in the context of practical task. Furthermore performance-based education focuses on the process students go throughout the learning process (Ochabe, 2012). In addition, performance-based education stimulates the development of other important dimension of learning namely; the affective, social and meta-cognitive aspect of learning. According to Odela (2010) performance is a word used in situational analysis in terms of good or bad of a given task.

Performance is the demonstration of pupil's ability to attain certain level of instructional objectives in and out of classroom experiences (Agbo, 2014). This means that performance shows pupils level of achievement in their classroom activities. Performance is an indicator that shows the level of learners academic achievement after a given test or examination. This implies that when pupils are taught or exposed to a given unit of an instruction, they are expected to be examined or tested to determine the degree of the attainment of the stated behavioural objectives.

According to Onyechunmo (2011), performance comprises factors that play vital role in the academic achievement of the pupils. Performance-based education motivates students to participate in interesting and meaningful tasks. It helps students develop a sense of pride in their work, fostering confidence in the target language. The assessment thus enables students to discover specific skills and competence by performing or producing something. Through performance-based teaching, teachers can track students, work on an activity and show them the value of their work processes and help monitor them to use their analytical skills to solve economics issues (Agbama, 2015).

Concept of Teaching and Learning Facilities

Olaitan & Agusiobo (2000), defined teaching as an attempt to bring out desirable changes in human learning, activities and behaviour. The aim of teaching therefore, is to impact learners to make those desirable changes in their behaviour that contribute to better living. These changes are:

i. Increase and storage of useful information and the understanding of basic principles in the subject matter.
ii. Acquisition of skills abilities and habits; for instance, psychomotor skills, the physical competence required to perform certain activities efficiently.

iii. Possession of desirable attitude and ideas, such as developing satisfaction about learning outcomes or achievements obtained through the process of sharing meaning.

Saylor (2011) define teaching as a process whereby one person mediates between another and the substance of this world to facilitate learning. This is deceitful of teaching since everybody is accorded the status of a teacher. Besides, helping one to learn something does not make one a teacher. Teaching facilities involves some complex activities on part of both teachers and learners in the school such as classroom, chalk board, laboratory, chairs, tables, public address system, flip charts, models, specimens and workshops. According to Bello (2011) teaching involves activity in which the learners participate so that they can understand the process and learn.

Jacoby (2004) stated that School facilities plays a vital role in the actualization of educational goals and objectives by satisfying the physical and emotional needs of the staff and students of the school. Henceforth, school plant can be regarded to as everything within the school premises which include the site, buildings, equipment and all essential structures. In other words school plant is the sum total of building, equipment, textbooks including the surrounding where teaching and learning takes place. By human resources, we mean the personnel employed in the school to ensure the learning. They include the principals, the headmistress, the teachers and the administration staff. The human resources can also be seen as the greatest and most useful facilities a school can ever have, the reason being that no matter how a school is physically facilitated, if there are no human resources in it, there can be no learning invariably, there will be no school. While physical resources can be seen as those materials which can give help or comfort to school, organization, country or an individual. For example, the buildings, the libraries, chairs, books, chalkboards, sports field environment etc (Smith, 2000).

Learning may be defined as a change in behaviour which is more or less permanent in nature that results from activity, training or observation. Max (2010) defines learning as –a relatively enduring change in behaviour which is the function ofpriorbehaviour(usuallycalledpractice).Theideaofpriorbehaviourconnotes some formal experiences. In other words, learning may be defines as a process whereby, as a result of experience, some change in patterns of adjustment occur (Ehiemetalor, 2001). Psychological definition of learning is change, or modification of behavior or responses as a result of some forms of experiences (Ehiemetalor, 2001).

To understand the concept of learning from the point of view of the psychologist one needs to examine the key words ‘‘change’’, which implies that learning is a change of behaviour as a different person from one which he was before he went into it .this changes is the intellectual and emotional functioning which is important meaning that the learner now begins to reason in a different

ways he sees a problem from a different perspective becomes increasing aware of the complexity of a particular problem and interacts in a more socially acceptable way with other people in his environment (Obanya, 2011).

Learning facilities according to Afolabi (2002) refers to the site, building, furniture and equipment that contribute to a positive learning environment and quality of education for all students. The learning facilities available within an educational institution have positive relationship with the quality of teaching and learning activities which in turn leads to the attainment of goals set. The learning facilities of the school building and furniture will determine how long such will last while comfortable in classroom.

Importance of Teaching /Learning on Students

The importance of school facilities has been highlighted by many educational administrators and planners. The importance attached to it as a vehicle for effective teaching and learning cannot be over emphasized. Kocheny (2012) asserted that as school heads and their academic staff plan and think together about the present and future needs of school facilities as vital factor that can contribute to the enrolment of students in the school. He further observes that through adequate planning of school facilities, they can determine the type of instructional materials teachers' would need for effective instructions and whether the available classroom are adequate for the anticipated number of students.

Mgbodile (2000) stressing the need for school facilities, observed that the physical appearance and general condition of school physical facilities are the striking basis upon which many parents and friends of any educational institutions may make their initial judgments about the quality of what goes on in the school. In short, the physical facilities play a major role in determining the type of relationship between the school and the community. This is because parents and pupils make their judgments and take their decisions on whether to associate themselves with a particular school after a careful evaluation and consideration of the facilities in the school.

Ani (2017) while supporting the above statement opined that if the quality and quantity of physical facilities attracts the admiration of a parent, the conviction of the parent will be that since the quality and quantity of facilities is of such level, the quality of the staff and school programme will be of high standard. Thus Obi (2011) said that the general landscaping of the school speaks succinctly of the tone of the school and the disposition of the management. Therefore to attract the admiration and acceptance from the community, there is need for a well-planned school physical facilities and equipment. In the present day Nigeria, schools cannot be divorced from the communities. Therefore, there is need for the planner of the school facilities to bear this observation in mind while structuring and procuring the plant. In most communities that form the neighborhood of schools, certain activities like club or village meetings, marriage ceremonies, church services or other forms of gathering which require

the use of good and appropriate environment take place in the school (Broorde, 2003).

A school with poorly planned environment in terms of accommodation, furniture and other forms of equipment cannot attract the attention of the community and thus fail to satisfy the social needs of the community. Onwurah (2004) citing Whelers (2001) stated that the school facilities plays a crucial role in the development of the three domains of Bloom's Taxonomy of educational objectives namely; cognitive, affective and Psychomotor. Educational facilities are needed for developing cognitive area of knowledge, abilities and skill, which are prerequisites for academic achievement. They are essential for developing values, commitment, positive emotions and social interactional sensitivity in learners. In addition, they help the school to develop the hands and muscles of learners.

Ejikeme (2018) citing Longman & Longman (2014) also called attention to the fact that Montessori, a specialist in educating children laid emphasis on the importance of providing an environment physically and psychologically adjusted to the stages of growth, so that the child could generally master his environment. Some authorities such as Obi (2011) and Abraham (2003) have seen school management as judicious use of human and material resources as to achieve the objectives of the school. In other words, if there are no human and material resources in school, there will be no administration. Therefore, there is need for a well-planned and organized school facility to make for effective school administration and management. If there is shortage of accommodation, furniture, equipment or other material resources, this can affect the productivity of the teachers, the administrator – teacher relationship and even administrator – pupil relationship.

Moreover, the academic performance of the student s and their outward behaviour are major yardstick for assessing the effectiveness of school principals and this criteria as earlier mentioned, is closely tied to conducive school environment. Obi (2011) also noted that environment can impact the leader and the led. Therefore, the extent to which the leader will achieve organizational success depends upon a combination of variables among which effective management of school facilities is one. Moreover, Adesina & Ogunsaji (2010) noted that for effective performance of educational programmes, the school facilities and educational goals should be viewed as being closely interwoven and interdependent. Apart from protecting pupils from the sun, the rain, heat and cold, the school building represent a learning environment which has a tremendous impact on the comfort, safety and performances of the children.

Effects of Teaching & Learning Facilities on Students' Academic Performance

The lists of teaching facilities that teachers can use are inexhaustible. The teachers' level of resourcefulness, creativity and imagination are in fact not limited. Teaching facilities will therefore, include all forms of information that can be used to promote and encourage effective teaching learning activities. These are textbooks, supplementary books, workbooks, reference book, charts, magazines, maps, journals, periodicals, pamphlets, newspapers, posters, programmed texts and non-printed materials like, film, filmstrips models, models, mock-up, slides, pictures, audio and videotapes, records, transparent, globes, board and a host of others. There are also the range of teaching facilities such as sciences apparatuses and chemicals (National Education Research Center, 2002).

Gidado (1990) made reference to a study carried out in Kano on secondary School administration revealed that most of the schools were devoid of necessary facilities among which are the teaching facilities. Textbooks in form of teachers guide and students' texts, his tasks are made difficult as he is expected to use his initiative and creativity in planning his lessons. Teaching facilities are required for the various activities of the school program as well as for the extra- curricular activities. To meet these requirements of the schools, the National Policy on Education (2004) has mentioned government commitment to ensure that all schools are properly equipped to provide sound and effective teaching to embark on a scheme for the provision of inexpensive textbooks''. This is not an easy task and therefore the federal government was to make a provision of setting up of a National Committee to advice on the federation (NCAF 1981) National Policy on Education1977, 1981,1998, 2004.

Teaching facilities are facilitators of teaching learning activities when properly used. Agun (2019) opined that teaching facilities are designed, produced, and used for the following reasons:

i. The achievement of specific curriculum objectives such as textbooks and supplementary facilities
ii. To encourage and promotes self-instruction i.e programmed learning package
iii. For enrichment of learning
iv. To aid teachers presentation of the learning task
v. To arouse interest and motivate learners. Most of his ideas about the uses of teaching facilities are in agreement with the principles of learning and motivation

Ewudo (2019), stated that Science equipment help students to improve in their learning procedure. Through the use of teaching equipment's, skills are developed. It help students range of experiences and to achieve their desired aim. Urom (2010) stated that Science equipment stimulate students desire to learn. It equally assist the student learning process by making assimilation and

memorization of materials easy and help to hold attention as well as longer retention of information.

Ogbu (2016) stated that teaching equipment's develop students ideas through the creation of events and objectives which will improve the students continuity of thought. Equally, teaching equipment's facilitates, stimulates and aids students to take active interest in the subject under study. It improves the emotional instruct of students by providing them with the required knowledge. It improve students from understanding the working model introduced by the teacher. The student captures the true picture of what is taught by the teacher. In presenting subject content and motion pictures, teaching equipments plays an efficient role by making sure students captures the main points or the subject matter.

Patterson (2018) stated that teaching equipments is instrumental to impacting positively to the students survival and choice of career in tertiary institution. It improves students attitudes, skills and knowledge. Weston (1992) stated that teaching equipments help students attain to his high level of effective development through the use of appropriate instructional objectives and use of material. Students who manifest a lot of inconsistencies in their behaviours are those who are not able to attain enough development in this aspect of the affective domain.

Ukpata (2005) stated that teaching equipments/materials took into account the background material took into account the background of student in the secondary schools. It adequately modify students by providing instructional media together with sound institution management techniques. Hitchens (1963) stated that Teaching equipments help to improve the intellectual power of the teacher. As the teachers studies the Science equipment it will help to build their intellectual power and help them to impact the knowledge on students. Ani (2006) stated that Science equipment help the teacher in presenting the subject matter effectively before the students. This is because before the teacher could come to the class, teacher will study the subject and prepare a lesson note. He will study the lesson note before coming to the class. In the end, it help the teacher to flow very well before the students.

Abdullahi (2008) stated that Teaching equipments help teachers to make use of the working model. In this case, the teacher will be properly organized in impacting the actual course content to students. Teacher using Science equipment efficiently will help the students perform well in external examinations and compete favorable with their competitors from other schools. A teacher who fails to teach according to the Science equipment will be making the students tired, but because the teachers makes use of the approved teaching equipments, it paves way for the students to learn excellently.

Orumbata (2004) stated that Teaching equipments help teachers in improving their skills and widening of their knowledge. This is because the teacher is closed with the teaching apparatus and when studied it, can

experiment it before the students such that all will understand the teacher. Teaching equipments also help the teacher to study ahead of time. This help the teacher to memorize what is meant to teach in the class and will be ready to entertain any question from the students where ever the student is confused and not following the trend again.

Chima (2019) sees teaching equipments as help to teacher to have better understanding with his students. In this case, students would be very proud of their teacher and goes to the teacher even after teaching to obtain from the teacher the area they failed to understand in their previous class. The teacher will as well calm down to explain to the student in the language the student will understand. Oluwate (2010) opined that Teaching equipment's improves teachers creativeness. As the teacher studies according to instruction he assimilates easily what knowledge to impact to students. The best method to achieve this scope and this will definitely improve his creativeness and may lead the teacher to another level greater than where the teacher expects.

Adewale (2011) said that teaching equipments will help the teacher to hold students attention in the class. This is because students believe in their teacher who teaches objectively as it will help students understand the mechanism of learning. Ugwu (2008) said Teaching equipments help the teacher to control the pace of learning. As the teacher goes into the class, the students wait for his approach. If the teacher is flowing very well, the entire class will be calmed and every student will open the listening ear. The students and teacher may not know that they have exceeded the time needed for that lesson.

Science laboratory equipment allows students to interact directly with the data gathered. It is also found that school science laboratory equipment and supplies make teaching and learning easy both for the teachers, as well as for the students. There are several scientific theories and concepts that are difficult to explain directly from the books. Anatomy models, physics science kits, and chemistry science kits for instance make it easy to understand the otherwise complex theories of science (Bullock, 2007).

Laboratory teaching assumes that first-hand experience in observation and manipulation of the materials of science is superior to other methods of developing understanding and appreciation. Laboratory training is also frequently used to develop skills necessary for more advanced study or research. There are different scales which assess classroom environment. Each scale has been classified according to Moos's (2004) scheme for classifying human environments. The dimensions of human environments include relationships, personal development, and system maintenance/change. Fraser (2008) later refined Moos's (2004) work to make it more appropriate, initially to describe classroom learning environments and then science learning environments

One major difference between elementary and middle or high schools are the nature of the classroom. Most elementary school classes are "self-contained," and a single teacher is responsible for teaching all or most of the academic

subjects to a single group of students. Thus, science is usually taught in the regular classroom, as opposed to specialized science laboratories, as is usually the case in middle and high schools; however, it is not unheard of for elementary schools to have separate laboratory facilities for science (Beihle, Motz, & West, 1999)

Forty percent of schools nationwide reported that their facilities could not meet the functional requirements of laboratory science. More recent data from the 2000 National Survey of Science and Mathematics Education suggests that along with lack of content preparation, inadequate facilities and equipment and lack of money to purchase consumable supplies are barriers to the effective and equitable teaching of science (Weiss & Ezeanichinedu, 2002).

Jones & Edmunds, (2006) explored three different models for elementary science instruction, two of which included a school science laboratory. In the "Resource Model," the laboratory housed teacher and student resource books, as well as manipulative, kits, and consumable materials, all of which were available for classroom teachers' use. Education in the largest sense is an act or experience that has a formative effect on the mind, character of physical ability of an individual, in its technical sense it is the process by which society deliberately transmit its accumulated knowledge, skills and value from one generation to another (Samba & Eriba, 2011).

Research Methodology

The researcher used descriptive survey design type of research for this study. The researcher considered that this type of design was suitable for the study because it allows a wide coverage within a limited time.

The population of this research work comprises of all the eleven (11) secondary schools in Ikere Ekiti with total number of 138,259 students.

The sample for this study consisted of (118) respondent. Simple random sampling techniques was used to select five secondary schools out of the 11 public secondary schools in Ikere Ekiti. The sample consisted of 10 Integrated Science teachers and 108 Basic Science students. Purposive sampling techniques was used to select 52 girls and 56 boys from JSS 1 to 3 from the sampled schools

The instrument that was used for this research work is a self developed questionnaire titled: "Evaluation of teaching facilities in teaching and learning of Basic Science" (ETFTLBS). It was designed by the researcher along with the variables under study and the question it contains will be drawn from the research questions. The questionnaire consisted of two section,. Section A contains the bio-data of the respondents which include name of school, class, and gender, while Section B was used to elicit information on the research topic

The face and content validity of the instrument was ascertained by experts in school of Science Education. The corrections observed were effected in the final draft of the questionnaire.

The reliability of the instrument was carried out on 20 respondents who did not form part of the final subjects that was used for this study at two-week interval. The test-retest method of reliability was used. The two sets of data was analyzed using Pearson product moment correlation (PPMC) to get the value of (r) 1.00 for this study.

The administration of the questionnaire was done by the researcher. The researcher distributed the questionnaires to the respondents. Adequate time was given to the respondents to respond to the questionnaire. Completed questionnaire was collected on the spot.

The data collected was subjected to statistical analysis of frequency counts, and Simple percentage for demographic data while chi-square was used to test the hypotheses formulated for the study at 0.05 level of significance.

Results and Discussion

Testing of Hypotheses

The hypothesis will be tested by the use of chi-square(X^2) distributed that is, 0.05 or 0.01 level of significance/critical level.

Hypotheses 1: There is no significant relationship between teaching facilities and students academic performance in Basic Science.

Table 1: Relationship between Teaching Facilities and Academic Performance of Students

S/N	ITEMS	x^2- cal	x^2 - tab	df	Remark
1	The quality of teaching facilities can significantly impact the academic performance of students	340.158	9.49	4	Sig.
2	Well-equipped teaching facilities, such as laboratories, libraries, audio-visual aids, and technology resources, provide students with hands-on experiences and opportunities to engage with the subject matter more effectively.				
3	Teaching facilities that promote active learning methodologies, such as group work, discussions, and interactive demonstrations, can improve students' engagement with the subject.				
4	Adequate teaching facilities enable students to carry out experiments, conduct investigations, and analyze data, which helps them to bridge the gap				

	between theory and practice.				
5	Quality teaching facilities play a crucial role in promoting academic excellence among Basic Science students by providing opportunities for practical learning and enhancing the overall learning experience				

P< 0.05, * = Significant

Reading through the chi-square table at 0.05 significant level, (x^2) chi-square = 9.49 from the table, from the analysis x^2calculated = 340.158. From the result, it can be deduced that x^2-cal is greater than x^2-tab. Therefore, the null hypothesis that state, there is no significant relationship between teaching facilities and students academic performance in Basic Science is rejected. Conclusively, this implies that there is significant relationship between the teaching facilities and students academic performance in integrated science

Hypotheses 2: There is no significant relationship between the availability of teaching facilities and Students academic performance in Basic Science.

Table 2: Relationship between Availability of Teaching Facilities and Academic Performance of Students.

S/N	**ITEMS**	**x^2- cal**	**x^2 - tab**	**df**	**Remark**
1	Your school have science laboratory for practical work	141.83	9.49	4	Sig.
2	Our school laboratory have enough laboratory equipment to carry out practical work.				
3	Government assist the school with laboratory equipment				
4	The students were asked to contribute money to buy any equipment that is not available in the school.				
5	Parent teachers association assists the school with laboratory equipment.				

P< 0.05, * = Significant

Reading through the chi-square table at 0.05 significant level, (x^2) chi-square = 9.49 from the table, from the analysis x^2calculated = 141.83. From the result, it can be deduced that x^2-cal is greater than x^2-tab. Therefore, the null hypothesis that state there is no significant relationship between the availability

of teaching facilities and Students academic performance in Basic Science is rejected. Conclusively, this implies that there is significant relationship between availability of teaching facilities on students' academic performance

Hypotheses 3: There is no significant relationship between proper management of school facilities and academic performance.

Table 3: Relationship between proper management of school facilities and students academic performance

S/N	ITEMS	x^2- cal	x^2 - tab	df	Remark
1	School authorities properly manage the available facilities for the benefit of students and to maintain a positive learning environment	183.07	7.815	3	**Sig.**
2	The competence and effectiveness of school administrators play a crucial role in managing teaching facilities.				
3	School administration assign specific responsibilities to staff members for maintaining different aspects of the facilities, such as grounds maintenance, building repair, and equipment maintenance.				
4	A regular maintenance schedule is in place to ensure that the facilities are kept in good condition and any repairs are done in a timely manner.				

P< 0.05, * = Significant

Reading through the chi-square table at 0.05 significant level, (x^2) chi-square = 7.815 from the table, from the analysis x^2-calculated = 183.07. From the result, it can be deduced that x^2-cal is greater than x^2-tab. Therefore, the null hypothesis that

State there is no significant relationship between proper management of school facilities and academic performance was rejected. Therefore proper management of school facilities influence student's academic performance.

Discussion of Result

It could logically be stated that the relevant of teaching facilities in teaching and learning of integrated science could not be over emphasis. The result presented above shows effects of teaching facilities on academic performance of Basic Science students. It could be revealed that Well-equipped

teaching facilities, such as laboratories, libraries, audio-visual aids, and technology resources, provide students with hands-on experiences and opportunities to engage with the subject matter more effectively.

Also the quality of teaching facilities can significantly impact the academic performance of students. Jacoby (2004) stated that School facilities plays a vital role in the actualization of educational goals and objectives by satisfying the physical and emotional needs of the staff and students of the school. Henceforth, school plant can be regarded to as everything within the school premises which include the site, buildings, equipment and all essential structures. In other words school plant is the sum total of building, equipment, textbooks including the surrounding where teaching and learning takes place.

By human resources, we mean the personnel employed in the school to ensure the learning. They include the principals, the headmistress, the teachers and the administration staff. The human resources can also be seen as the greatest and most useful facilities a school can ever have, the reason being that no matter how a school is physically facilitated, if there are no human resources in it, there can be no learning invariably, there will be no school. While physical resources can be seen as those materials which can give help or comfort to school, organization, country or an individual. For example, the buildings, the libraries, chairs, books, chalkboards, sports field environment etc.

The result also shows that there are adequate numbers of teaching facilities in the sample school. Majority of the respondents agreed that school laboratory have enough laboratory equipment to carry out practical work. The result also shows that Government assist the school with laboratory equipment

The study also shows that School authorities properly manage the available facilities for the benefit of students and to maintain a positive learning environment. Based on the result majority of the respondents are on the opinion that the competence and effectiveness of school administrators play a crucial role in managing teaching facilities. Likewise school administration assign specific responsibilities to staff members for maintaining different aspects of the facilities, such as grounds maintenance, building repair, and equipment maintenance.

The findings of this study are consistent with Adesola (2008) found out that the level of available resources is indeed a plus to the teachers and goes a long way to show the level of ingenuity and commitment towards effective delivery of lesson. Akinfolarin (2012) identified facilities as a major contributing factor to academic performance in the school system. Different studies conducted by Ayodele (2016) and Vandiver (2011) showed that a positive relationship exists between availability of facilities and students academic achievement. Writing on the role of facilities in teaching –learning process, Balogun (2012) submitted that no effective science education programme can exist without facilities for teaching.

Conclusion

It can be concluded from this study that well-equipped teaching facilities, such as laboratories, libraries, audio-visual aids, and technology resources, provide students with hands-on experiences and opportunities to engage with the subject matter more effectively. Schools without adequate teaching facilities often struggle with a shortage of space. This can lead to overcrowding, making it difficult for students and teachers to move around and work efficiently. Teaching facilities such as laboratories, computer labs, and libraries provide opportunities for hands-on learning and practical application of knowledge.

Recommendations

To successfully address the issue of school facilities on academic performance in integrated science, the researcher made the following recommendations:

1. Government at all levels and private school owners should ensure that modern facilities are available and also ensures the usage to improve academic performance.
2. Most of the facilities available are in poor state of disrepair. Hence, educational planners and school leaders should carryout extensive repairs, renovation, retrofitting and replacement of some major component.

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