

**INFLUENCE OF LEARNING ENVIRONMENT ON THE TEACHING
AND LEARNING OF BIOLOGY IN EGOR LOCAL GOVERNMENT
AREA OF EDO STATE**

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TEACHING AND LEARNING OF BIOLOGY IN EGOR LOCAL AREA
OF EDO STATE**

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**BEING A RESEARCH WORK SUBMITTED TO THE DEPARTMENT OF
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CERTIFICATION

We the undersigned certify that this research work was carried out by **OSAYIOMON ONOGUEDP PERPETUAL** of the Department of Curriculum and Instrument Technology, University of Benin, Benin city.

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DEDICATION

This project work is specially dedicated to God Almighty who has been my strength, life and hope also to my wonderful families of OSEYIOMON & ORUKPE.

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would like to express my sincere gratitude to my maker who kept till the end of this programme. To my loving, supportive and understanding husband and children I say thank you. My parents and siblings, you are wonderful. My fellow course mates I remember you all.

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ABSTRACT

The Study investigated students' perception of learning environment in teaching and learning of Biology in Egor local Government Area of Edo State. Three research questions were raised in order to carry out this study.

The Survey research design was used for this study. The Subject of this Study consisted of one hundred and fiftysix (156) SS2 students. A questionnaire title ''students' Perception of Their Learning Environment in the teaching and learning of Biology (TLE) Questionnaire was used to collect data from respondents. The questionnaire used consisted of two section, section A and B. Section A contains demographic information which include the name of the school, sex and age of the respondent, while section B mainly contained the items of learning environment. The reliability of the instrument was established using Cronbach Alpha Statistics and the reliability co-efficient obtained was 0.85. Data collected were analyzed using inferential statistics

It was found that students have a negative perception of their biology learning environment and that the sex of students did not affect their perception of their learning environment. Students reported that facilities in the schools were no longer in used; they concluded that their learning environment was poor. In conclusion; students, face certain challenges in their biology learning environment which include inadequate laboratory, lack of chairs and tables in the library. It is recommended among others that the government, parents and teachers should provide basic and necessary amenities and facilities to encourage proper learning and enable students to have a positive perception and attitude to their Biology learning environment.

CHAPTER ONE

INTRODUCTION

Background to the Study

Education is at the center of a nation's development and at such, education and developments go hand in hand. The role of education in a nation cannot be over emphasized because it is the driving force of the national development and economic growth of a nation. Quality education breed good academic performance and as such, the issue of academic performance of students in Nigeria has been of much concern to the government, parent, teachers and students alike. The quality of education not only depends on the teachers as reflected in the performance of their duties but also in the effective co-ordination of the learning environment.

The classroom environment as applied to educational setting is viewed as a place where learners and teachers interact with each other and use a variety of tools and information resources in their pursuit of learning (otami, Ampiah and Anthony ,2012).Classrooms is anywhere dedicated primarily to teaching and learning activities, either within school or outside the school environment ,as far teaching and learning can take place there, it is a classroom .Creating favorable classroom environments should therefore be of great importance to science

educators since evidence suggests that classroom environment influences students learning

One of the major aims of education is the development of wholesome personality. Family is the socio-biological unit that exerts the greatest influence on the development and perpetration of the individual's behavior. Next to the home is the school, which is the most important experience in the process of development of children. Classroom learning environment is the second home to student. Teachers and parents have greater responsibility to foster mental health status of the students. In an adverse condition, the classroom may also substitute the home situations and meet the emotional needs of those neglected in the home. Both the environment (home and classroom) share influential place in the child's life and also contribute to the development of the children and at such classroom learning environment is regarded as the second home to student.

Classroom is a place where unique face to face group is marked by interpersonal relationship among its members, the success or the failure of the students also depend on the quality of classroom social climate, the classroom learning environment and the development and the effective achievement of the student. The type of classroom learning environment is dictated by the way majority of the students perceive their experiences in the classroom, these

perceptions or experiences may be negative or positive, pleasant or unpleasant. When the environment is conducive, it is perceived to be stimulating, pleasant, peaceful and exciting. There is good moral, solidarity or cohesiveness among the students. The student feel that they belong to the class and are recognized by their mates and teachers, they are enthusiastic to take part in the class activities because communication in the class is good and encouraging. In such learning environment, students are encouraged to learn and they eagerly do so. Having discussed the classroom, let us talk about the other part of the learning environment as the classroom alone does not constitute the learning environment.

The library is one of the constituent of the learning environment which influences students learning positively. The library according to Wikipedia is ‘the collection of materials or media that are accessible for use and not just for display’. The library provides a quiet place for the student to learn what he/she has been taught to facilitate learning, it provides the student with additional information about a particular topic not mentioned in class and also makes teaching resources accessible to the teacher to facilitate teaching.

The Laboratory is an integral part of the science learning environment and provides an environment different in many ways from that of traditional classroom setting. Akinbobola A.O (2010) said that A good laboratory environment promotes

students' curiosity, rewards creativity, encourages a spirit of healthy questioning, avoids dogmatism, and promotes meaningful understanding, where wait-time is essential in promoting thoughtful responses and dialog. A good science classroom welcomes all students and strives to enable all motivated students to be successful

The location of the school is an external factor that can greatly affect the teaching and learning process. if the school is located close to a market or a noisy environment, the learning and teaching process will be greatly affected by the noise in that environment, Chiang and Lai (2008) exploited the effect of noise's harmful effect on mental and physical wellbeing as part of their study. From a plethora of demonstrable effects, the following negative outcomes were reported specifically in the context of a noisy room; insomnia; headache; tinnitus and facial pallor.

Learning place illumination or lightening also plays a critical role because of the direct relationship that good lighting and students' performance have (Jago & Tanner, 1999). In fact, good lighting is very essential for any spaces that planned for formal media presentation and training, or intended to support teamwork or individual. People need enough and appropriate lighting system for reading or other visual tasks.

when we talk about various way to ensure that the learning environment is conducive, so that learning can take place effectively, not many people think about the toilet but the availability of toilet can encourage children, especially girls to go school and remain in the school system. The lack of proper toilet in schools threaten the education of millions of children in the developing world, who are at risk of getting sick due to poor hygiene and subsequently miss school.

According to oxford advanced learners dictionary [2016] perception is an idea, a belief, or an image you have as a result of how you see or understand something and according to Yolanda (2000) it is our recognition and interpretation of sensory information and it include how we respond to the information, it is a process where we take in sensory information and use that information in order to interact with the environment .the perception of students of their learning environment greatly affect their learning process.

Hence, the focus of the study is to investigate the perception of senior secondary students toward their learning environment and their attitude toward biology.

STATEMENT OF THE PROBLEM

Learning environment such as Classrooms, Laboratory, Library play a fundamental role in student's attitude and performance toward a science subject like Biology; the lack of a conducive learning environment has resulted in the poor perception of students about their learning environment. this has led to a trend in Nigeria educational system where the issue of poor attitude displayed by Senior Secondary Students toward Biology has resulted to a great decline in the performance of students offering biology as evidenced in the WAEC chief Examiner's Report (2016). It was pointed out that the performance and achievement of Biology student has greatly declined. If the problems associated with learning environment are addressed, this could affect student performance in examinations.

RESEARCH QUESTIONS

The following questions were raised to guide the study.

1. How do Senior Secondary Schools students in Egor local government perceive their classroom learning environment?
2. What are the attitudes of Senior Secondary School students toward their Biology learning environment?

3. Do Senior Secondary School students in Egor local Government utilize their learning environment?

PURPOSE OF STUDY

The purpose of this study is listed as follow;

1. To find out senior Secondary School Students perception of their Biology classroom environment.
2. To find out the attitude of senior Secondary School Student toward Biology.
3. To establish if the learning environment affect students' performance in Biology.

SIGNIFICANCE OF THE STUDY

This study will be of great benefit to the teachers, Students and even other researchers. For teachers it will make them understand the perception of students toward their environment. It will make them create conducive learning environment which will aid good performance.it will help students to do well in Biology, If teachers provide conducive learning, this would improve their performance in SSCE.

Other researchers would use the findings of this study to find out more about the influence of learning environment on students' academic performance

SCOPE OF THE STUDY

This study examined students' perception of learning in the teaching and learning of Biology in Egor Local Government Area, it was delimited to SSS 2 students in public Senior Secondary School in Egor Local Government Area.

DEFINITION OF TERMS

1. TEACHING:

This is the art or faculty of perceiving by means of senses or of the mind. Recognition, realization, conception, idea notion, observation, grasp, understanding or comprehension of something.

2. BIOLOGY:

This is a natural science that studies life and living organism including their physical structure, chemical process molecular interaction, physiological mechanism, development and evolution.

3. LEARNING ENVIRONMENT:

This refers to any conducive environment where learning and assimilation of knowledge can take place.

4. LEARNING:

Disposition or state of mind toward an object or person.

CHAPTER TWO

LITERATURE REVIEW

This chapter reviewed related literature on students perception of their learning environment in biology classroom and their attitude toward Biology. The researcher reviewed some of the related literature under the following headings

❖ DEFINITION OF CONCEPTS

- Learning Environment
- Perception
- Attitude

❖ Student perception of their Biology learning environment

❖ Attitude of students to Biology

❖ Relationship between student perception of their Biology classroom learning environment and their attitude toward Biology

LEARNING ENVIRONMENT

The school is an established institution for the formal education and socialization of citizens of any society. Students acquire relevant knowledge and skills, value, attitude and competencies needed for useful living in the society through the education process in the school. The learning environment includes

the classrooms, library, laboratory and other facilities within the school or outside the school. According to Wikipedia, learning environment refers to an educational approach, cultural context, physical setting in which teaching and learning occur.

As Vinales(2015) mentioned in her study, the learning environment is a key factor for student learning, it provides crucial exposure for the students and help student develop their repertoire of skills, knowledge, attitude and behavior in order to meet 21st century competencies. Learning environment ought to have surroundings that make it possible for students to learn with ease and to have access to the materials to help them achieve their goals. To make lifelong learning possible, good learning environment are crucial.

Asiyai(2004) viewed a learning environment as consisting of all the physical sensory element such as color, lightening, space, furniture that characterized the place in which students are expected to learn. this learning environment encompasses a broad range of educational concept including the physical setting, the psychological environment created through social context and numerous instructional components related to teacher characteristics and behavior. But for this study we will greatly focus on the physical learning environment which include the classroom, laboratory, library, sitting arrangement and lightening.

Classroom

The classroom environment as applied to educational setting is viewed as a place where learners and teachers interact with each other and use a variety of tools and information resources in their pursuit of learning (Otami ,Ampiah and Anthony ,2012).Classrooms is anywhere dedicated primarily to teaching and learning activities, either within school or outside the school environment ,as far teaching and learning can take place there, it is a classroom .Creating favorable classroom environments should therefore be of great importance to science educators since evidence suggests that classroom environment influences students learning.

Hutchison (2004) asserted that classroom learning environment is where classes are held. The classroom learning environment provide a space where learning can take place uninterrupted by distraction. A conducive classroom climate is one that is optimal for teaching and learning and where students feel safe and nurtured. Such clam climate creations include;

The tone set by the teacher plays an important role in establishing expectations about respectful behavior in the classroom. A teacher who is calm, fair and transparent about expectations and conduct serves as a model for students. This

includes establishing clear and appropriate consequences for breaking classroom and school rules, ensuring that they are just, proportional and paired with positive reinforcement. UNESCO (2019).

Adolescents bring creativity, enthusiasm and a strong sense of natural justice to their learning and play. Where learners are given meaningful opportunities to provide creative and constructive input into lesson planning and school governance processes, expected benefits include: increased engagement; the development of skills in planning, problem-solving, group work and communication; and a sense of pride in school activities and their own learning experience. In addition, finding the right choice structure for student engagement ensures these benefits. Overly complex choices can result in negative or no outcome in learning. UNESCO (2019)

Physical classroom should be arranged so that students can work independently and easily arrange their desks for group work. For example, having an open space area conducive for teamwork. Teachers can also identify open areas outside of the classroom that could work for activities and group work (such as the schoolyard). In addition to open spaces, a quiet area where the teacher can speak directly to students one-to-one allows for debriefing of behavioral issues and for students to

feel safe to discuss sensitive issues, away from the other students. UNESCO (2019).

Teachers should adopt participatory teaching methods to allow students to benefit from active learning and practical activities. Using role-playing and the creative arts can assist students to understand and appreciate different experiences and points of view. These methods develop learning outcomes such as critical thinking and problem-solving skills. UNESCO (2019).

Sitting Arrangement.

Physical configuration of a classroom is more than an organizational or stylistic choice by the instructor. Classroom seating arrangements affect student learning, motivation, participation, and teacher-student and student-student relationships (Fernandes, Huang & Rinaldo 2011). In the virtual classroom space, such as real-time platforms like Zoom, instructional choices to employ engagement strategies and provide opportunities for feedback also have a positive impact on student learning outcomes (Francescucci and Rohani 2019). But we will focus on the physical classroom seating arrangement.

An instructor can maximize student engagement by changing the physical setup of chairs, tables, and presentations in the classroom. Instructional

communication theory suggests that seating arrangements can impact how the instructors communicate with students and how students interact with one another, impacting engagement, motivation, and focus. Rand(2017) suggests that the set-up of the classroom space shapes instructor pedagogy, choice of activities, and on-task student behavior. For example, a classroom with seating affixed and directed toward a podium at the front of the room results in instructors spending more time in lecture and students demonstrating less active engagement. In contrast, roundtable seating arrangements lead to instructors and students engaging in more active learning activities, resulting in improved learning outcomes (Brooks 2012). Further studies demonstrate that students prefer more flexible seating arrangements (Harvey and Kenyon, 2013). In particular, students express a preference for classrooms with mobile versus fixed chairs, and trapezoidal tables with chairs on casters versus. rectangular tables with immobile chairs. In general, spaces designed in a student-centered manner, focusing on learner construction of knowledge and collaboration, can support student learning (Rands and Gansemer-Topf, 2017). In reality, many classrooms at colleges and universities have been built using more conventional models for lecture and seminar-type courses. Instructors can consider ways to modify seating arrangements and align those arrangements with the demands of classroom activities to maximize student

learning and they include traditional, roundtable ,horseshoe or semicircle ,double horseshoe ,pods (groups ,pairs).

Laboratory

According to Akinbobola and Afolabi (2010), a productive laboratory environment is a student-centered classroom, which is interactive, comfortable, and collaborative learning is encouraged. National Association of Biology Teachers (2004) see a laboratory learning environment as a place where students work individually, or in a small group to solve problems. The students make use of scientific processes and materials to construct their own explanation of scientific phenomena. They make use of science process skills such as manipulation, investigation, experimentation observation, collection and interpretation of data during scientific process. A Laboratory is seen as a place providing opportunities for experimentation, observation or practice in a field of study. The hallmark of science is that it generates theories and laws that must be consistent with observation; much of the evidence from this observation is collected during laboratory investigations. Throughout the process, students should have the opportunities to run scientific investigations, engage in scientific reasoning, manipulate equipment, record data ,analyses result and discuss their findings. The use of laboratory and all its equipment are the key to any practical works in

biology and science in general.it promote long term memory in students, active participation among learners and its exposes learners to scientific experience that would help them in developing scientific attitude and skills and inculcate the spirit of enquiry and scientific mode of thinking.

For Biology to be taught properly and effectively, laboratory teaching must be an integral part of science curriculum. Experimentation in the laboratory is an integral part of teaching and learning of Biology which must be practiced constantly, through this, information about the structure, function, habits or behavior and several other life processes can be gathered to support this view, Okey (2008) argued that science subjects are not to be taught outside the laboratory. He further added that due to inadequate laboratory teaching of Biology is the chief cause of biology student learning inadequacy and poor performance in biology examinations, also WAEC chief examiners report (2012) on the failure of biology candidates is due to the fact that there are no laboratories for teaching through participative demonstration of Biology. This shows that lack of adequately equipped biology laboratories contribute to student's negative perception about their learning environment and poor performance in examination. According to the National Association of Biology Teachers (2005) laboratory instructional activities or technique influence effective teaching, it allows the

teacher to engage the students actively. it provides the students the need to have many and varied opportunities for collecting, sorting, cataloging, observing, note taking, sketching, interviewing, surveying, using hand lens, microscope, thermometers, cameras and other common instrument. It is essential for students to be provided with opportunity for questioning, hypothesis formulation, experimental design and data analysis. Also student must be given opportunity to pursue procedural rather than simply follow recipes.

Gurley (2011) argued that Biology laboratory environment is very important to the success of students in biology classes ,because determining how much examining the percentage of laboratory studies and practical applications students do in the laboratory add to the understanding of the subject taught in theoretical classes the further added that laboratory classroom environment is quite different form classic environment in every aspect and it provides students with concrete learning possibilities.

Library

According to the definition taken from library and information science encyclopedia, academic libraries(2003) reflect the development of the colleges and universities of which they are a part. These libraries, are integral parts of the

institutions they serve, design their collections and services to meet the instructional programs of the particular institution. The program of the academic library varies depending upon institution of which they are a part. The basic assumption governing the growth and development of all academic libraries is that the library plays a role of central and critical importance in the instructional and scholarly life of a student.

One of the most important products of the academic endeavor is students' success in their courses of study. Shrestha(2008) made it very clear that users are the best judges of library services and that customer opinion of library service is of paramount importance. Should there be no users, libraries would only be needed as warehouses. User evaluations of library goodness have therefore frequently been taken at face value to indicate quality of service. Associated with the missions of libraries and their institutions. The Association of college and Research Libraries (1998) *Task Force on Academic Library Outcomes Assessment Report* defined outcomes measures of library services as "the ways in which library users are changed as a result of their contact with the library's resources and programs". Improvement in academic performance and academic success are quoted as examples of such changes. Wells made a particularly interesting comment by suggesting one way in which to measure the "change" or

improvement brought about by the library in individual students' work. She said that a particular assignment could be selected and the "students' use of the library in writing that particular assignment recorded and compared with actual marks gained", thus giving "a more direct indication of the library's role in the student's achievement". Libraries essentially aim at improving the quality of life by self-learning and self-education. Learning and getting educated are the dual and independent value of a library. Libraries have the built in potential to provide users as seekers of information in many situations with sources of information and knowledge to give them inner satisfaction. Growing user figures show that users really go to library/information centers for gaining information, education and inspiration to enhance the meaning and richness of their lives." All users of academic library have a right to expect library services to be up-to-date and commensurate with their needs provided by competent librarians and funded on adequate collection. A library collections do not consist only of books and journals. An academic library should house collection of films, slides and filmstrips. The recent development in automation have seen the spread of personal computers and network terminal nodes in academic libraries, and an increasing number of libraries house has circulated software and other automated information packages

in their collection. Many libraries are sharing information and data facilities and services on academic purpose.

Location of school

Where a school is located is another factor to consider when talking about a conducive learning environment, a noisy classroom is not conducive and this can be due to the fact that the school was located too close to a very busy road or too close to the market or commercial centers. Noise is defined as unwanted sound that could give negative effects to a person both physically (such as hearing loss) and psychologically (such as frustration and nuisance), Noise pollution is a major environmental problem. According to A. van Beek, D. Houthuijs (2015) It was estimated 10 millions of people in Europe were exposed to the excessive traffic noise, which may cause stress, illness and even fatal impact. The effect of noise in the classroom can make several disorders in students hearing, communication and intelligence. Noise pollution, in the recent years, has been well recognized as one of the major trepidations that affect the quality of life in urban areas worldwide. Currently traffic noise is not a new problem, but a persistent problem that should be solved together, since 54 % of the world's population lives in urban areas, a proportion that is expected to rise 66 % by 2050. The main impact of noise in urban areas is endured by students, especially whose schools are located near the

busy road. Noise exposure from machines produced by large vehicles noise pollution may cause interference and work stress. The negative impact of noise is worse at school with an open classroom design or located near to external noise sources. Long term and repeated noise exposure can lead to psychological health as well as it can reduce the students' learning motivation when they are at school. The noise of various vehicles can disturb the mood of students in the class. Noise as a chronic stressor has the potential to disrupt executive functioning (EF) in children. Basically, noise in the school environment affects the teaching and learning process. Students' learning experiences contribute to the development of their interest in particular learning domains, hence, if the domains are influenced by noise, the student cannot fully concentrate.

PERCEPTION

Perception according to the Oxford dictionary (2016) means the way something is regarded, understood or interpreted. An individual student's perception of the class as a whole is distinct from a student perception of his or her own role within the classroom. Students have a good advantage point to make judgment about the classroom because they have had enough time in a class to form accurate impressions.

According to the reference dictionary (2014), it is the act of apprehending by means of the sense or of the mind. it is the immediate or intuitive recognition or appreciation as of moral psychological or aesthetic insight intuition discernment.

According to Collins cobuild advanced dictionary (2014), your perception of something is the way you think about it or the impression you have of it. Oxford advanced learners dictionary defines perception as the way one notices things especially with your senses. From this definition it can be deduced that perception is an individualized concept, sensory impression that arises as a result of the interaction between stimulus in our environment and our sense organ. These impressions are transferred into representation in our nervous system which can then be processed. Perception is also the process where we take in sensing information and use the information in order to interact with the environment i.e. perception is also the organization, identification and interpretation of sensory information in order to represent and understand the environment. In order to receive information from the environment we are equipped with sense organs e.g. eyes, ear, nose. Each sense organ is a part of a sensory system which receives sensory inputs and transmits sensory information to the brain.

According to Yolanda (2000) perception is our recognition and interpretation of sensory information it also includes how we respond to the

information. it is a process where we take in sensory information and use that information in order to interact with the environment. There are several theories that psychologists have that show us how we perceive the world. These theories are not in opposition to each other. Signal detection theory proposed by Michael Spence in 1973 examines how outside influences affect our perception. This theory attempts to predict what we will pay attention to among competing stimuli. For example, they believe that one's absolute threshold depends on your motivation, sense of tiredness, and a whole host of other issues. When we perceive the world through top-down processing, we are using our experience to fill in the gaps in front of us; this is what we experience in top-down processing. The processing usually occurs when we are unfamiliar with an object. Instead of using our experience to decipher an object like in top-down, we use the features of the object itself.

Student perception or attitude toward their classroom environment has considerable influence over their mental health. In the school system, the classroom learning environment is the most vital place for the transactional business going on between school and the society. The learning environment is not conducive when it is perceived by the students to be hostile, tense, and unpleasant. The autocratic teacher may also create a rigid, tense environment with too much direction to scare students from being themselves. If the classroom is able to create a

congenital pleasant and favourable climate for learning, the students are likely to enjoy the schooling experience to facilitate effective learning and to avoid social problems that may arise out of failure. It is therefore very important to investigate the way students perceive their biology classroom environment because conducive classrooms tend to enhance the development of positive attitude toward biology.

ATTITUDE

Attitudes tend to influence behavior and therefore can be seen as an important aspect of education (Reid 2006). However, most curricula make little reference to attitude development, placing much more emphasis on the development of skills of knowledge and understanding.

Thurstone (1928) was the first person to investigate the problem of attitude measurement. He described an attitude as the effect for or against the psychological object. This laid great emphasis on the effective nature of attitude but it did not take into account that attitudes involve also the cognitive and the behavioral. A few years later Likert (1996) used a much less precise definition referring to a certain range within which response moves; this seemed to emphasize the behavior. Also a definition which combined ideas from both Thurstone and Likert and talked about a mental and neutral state of readiness to respond, organize

through experience, exerting a directive or dynamic influence on behavior was given by Allport 1998. This definition is still widely used today, it emphasizes the day attitude may influence behavior while being vague about the cognitive and affective.

According to Houghton (2010) attitude is a manner of thinking, feeling or behavior that reflects a state of mind or disposition. Myers (1997) suggested that attitude is a favorable or unfavorable evaluative reaction toward something or someone, exhibited in one's beliefs, feeling or intended behavior. Krech and Crutchfield (2000) took a new approach suggesting that attitude have aspects of problem solving and therefore people learn something new. Then Doob (2000) agreed by suggesting that attitude were attempts at solution, in other words, attitudes allow the person to make sense of something, they offer some kind of evaluation and analysis so that a person knows how to react.

Reid (2006) also indicated that attitude definition involve Three main component, namely cognitive, emotional(affective) and action-tendency(behavioral) Ophenheim (1992) summarized all the definition and suggested the modern interpretation for the attitude definition that would be acceptable to the researcher. Daniel (1997) also proposed a functional theory of attitudes. His suggestions are that attitude are determined by the functions they

serve for us, that is people hold given attitude because these attitude help them achieve their basic goals.

SENIOR SECONDARY SCHOOL PERCEPTION OF THEIR BIOLOGY LEARNING ENVIRONMENT

Onwachu and Nwakorobi(2009) investigated students evaluation and perception of their Biology learning environment, Data analyzed in the study using mean scores and multiple regression analyses showed that biology students perceived their biology teachers as helpful and friendly but the students manifested negative feelings about their biology classes. This is because according to onwachu (2009) the facilities in the learning environment weren't conducive. An expanding body of research has demonstrated the significant influence of how learning environment are linked with positive attitudinal and cognitive.

Taconis, telli and tekkaya (2010) conducted a study to examine how Turkish students perceived their biology classroom. Data were gathered from 1,474 high schools student in four inner city schools in Bursa, turkey. A total of 11 Biology teachers participated in the study with 52 of their classes. Data on students perception of their learning environment were collected with What Is Happening Class questionnaire(WIHC) and it measures a wide range of

dimensions that are important to the current situation in the classroom .It includes relevant dimension from past learning environment, questionnaires were combined these with dimensions that measures particular aspect of constructivism and other relevant operating in contemporary classroom (dorman 2003)the What Is Happening Class questionnaire(WIHIC) has been reported as useful and valid across a number of countries and school subject(Aldridge and fraser 2006).

Vandiver (2011) conducted a study to examine the impact of facilities on physical learning environment. The study was a mixed method research that used questionnaire and interviews to identify and appraise school facilities and learning environment. The problem was that school facilities and poor learning environment were negatively imparting students learning and faculty and administrators were not properly supporting stronger facility management.

ATTITUDE OF SENIOR SECONDARY SCHOOL STUDENT TOWARD BIOLOGY

Students attitude toward Biology have been investigated since the mid 1960's when educators started seeing a decrease in the enrollment in science courses and decreased interest in science and technology related discipline among Senior Students Reid (2006). As the association between attitude and learning

recently has become clearer, new instrument and method to measure the impact of courses and programs on student' attitude have been developed for various science disciplines such as biology (Russel, Holland and Semsar,2011)

Many factors are correlated with students attitude among them are performance, interest, gender, ethnicity and teaching strategies (perking 2006, felder 1995, baster field 2001, ambruster 2009). In general terms, it was found that interest of student toward Biology decreased year by year, this is due to the fact that as the students' progress through school, the likely career direction of students become clear and inevitably, for many will not involve biology. However it is also clear that student wish what they are being taught to be related to their lifestyle and to the world around which is part of their life. Also biology becomes more difficult, more demanding and also more unrelated to life style and this may be a factor in causing students attitude to be less positive. Studies also reveals that the students are very much interested in the use of live animals during the biology lessons and at such it can be proposed that the use of living organism would be one of the key factors which can increase student positive attitude toward biology

A correlational study investigated students' evaluation of their feelings toward biology lessons. The research questions guided the study; copies of a questionnaire containing 48 items were distributed to 1216 senior secondary

school students in Onitsha Education zone of Anambra state. Data analyzed using mean score and multiple regression analyzed showed that students manifested many negative feelings about their biology lessons. It was also found that, the student felt worried, bored and lost in their biology and many of them did not feel like attending Biology classes rather they felt like dropping the subject. This findings indicated many have negative feelings about the study of biology. The only aspect where they indicated positive feeling had to do with their learning and being confident that they will do well in biology. Consistent with this study, Okoye (2006) found out that most students displayed general negative attribute to the study of biology to the extent that some students copy notes in other subjects during biology classes and would prefer that the period spent in teaching biology be better used in teaching other subject.

Hence if the biology classrooms are conducive, interactive and more congenial for students, with understanding behavior from their teachers, there will be a resultant positive effect on the student feeling about their biology lesson.

RELATIONSHIP BETWEEN STUDENT PERCEPTION OF THEIR BIOLOGY CLASSROOM LEARNING ENVIRONMENT AND THEIR ATTITUDE TOWARD BIOLOGY

A study that was carried out by Afif in 2010 focused on investigating the relationship between attitude and the learning environment in Biology Science Classroom in the southern western Ontario with a view to gaining insight into what makes a Biology Science Classroom a successful and meaningful Science Learning environment. The research study was a correlational study designed to examine the relationship between attitude towards Biology and the classroom environment in grade nine science classes and it was done by comparing the result from the (WIHIC) what is happening in this class questionnaire with the result from the test of the science – related attitude (TOSRA). The study was conducted over 2 days in April 2006. The students were given as much time as needed to complete the questionnaire.

To answer the research question, Pearson Product Moment Correlation Analysis was conducted between each of eight scales of the What Is Happening Class questionnaire (WIHIC) and the seven scales of the TOSRA multiple regression analysis were performed to determine the significance of the relationship at the 5% level, the mean score and the standard deviation were

calculated for the scale of the What Is Happening Class questionnaire(WIHIC) and the Test of science Related Attitudes(TOSRA). The descriptive statistics were used to draw conclusion from data.

CHAPTER THREE

METHODOLOGY

The methods and procedures that will be adopted for carrying out the study will be presented in this chapter under the following sub-heading;

- Research Design
- Population of the Study
- Sample and sampling Techniques
- Instrument for Data Collection
- Validity of the Instrument
- Reliability of the Instrument
- Method of Data Collection
- Method of Data Analysis

RESEARCH DESIGN

This study employs descriptive survey research design to carry out a research on the challenges faced by Biology teachers in the teaching of Biology, using Senior Secondary Schools in Egor local government as a case study.

Nworgu (2006) a survey research is one in which a group of people or items are considered to be representative of the entire group.

It uses questionnaire to determine the opinion, preferences, attitude and perception of people about issues that concern them. A survey design is suitable for this research because it makes use of questionnaire to elicit information from respondents.

Population of the study

The population of the study comprises students of both public and private senior secondary schools in Egor Local Government Area of Edo State.

Sample and Sampling Techniques

The sample of the study was 100 students drawn from both public and private secondary schools and used in the study. Thus the sample consisted of students drawn from 3 randomly selected schools out the 15 public and private senior school, in Egor Local government area, using a simple random sampling technique.

Instrument for Data Collection

A questionnaire titled ‘‘Students’ Perception of Learning Environment in Teaching and Learning of Biology (QSPLETLOB) was used for data collection. The questionnaire contained questions that solicited student’s response on perception, attitude and utilization of learning environment.

Validity of the instrument

In order to ascertain the validity of the instrument, the expert judgment approach will be adopted. In this regard, specimen of the draft copy will be given to my supervisor and two lecturers in the department of curriculum and instructional technology.

Reliability of the instrument

The questionnaire was administered to 20 students from schools not included in this study. Their responses were subjected to Cronbach Alpha statistics and Reliability co-efficient of 0.85 when obtained

Method of Data Collection

The questionnaire was administered by the researcher to the respective schools and respondents. The researcher also retrieved the instrument immediately the respondents filled them.

Method of Data Analysis

Data collected from the respondents was analyzed using descriptive statistics such as frequency and percentages.

CHAPTER FOUR

Presentation of Results and Discussion of Findings

This chapter presents the analysis of data collected for the study. It also presents the discussion of the findings derived from the analysis of the data.

Analysis of research Questions

Research Question One

Table 4.1: How do senior secondary school students in Egor local government perceive their classroom learning environment?

ITEMS REMARKS	MEAN	STD
1. The toilet facilities in my school are DISAGREE No longer in use	1.98	0.905
2. Most of the facilities are no longer AGREE Working	3.19	0.935
3. I do not like my classroom sitting AGREE Arrangement	3.22	0.906
4. My school is located too close to the DISAGREE Market	1.87	1.102
5. There are no good lightening AGREE System in my school	3.13	0.937
TOTAL MEANS	2.68	
Grand Mean = 2.68		

From table 4.1; items two, three and five has a mean of 3.19, 3.22 and 3.13 respectively which indicate that the respondents agree. Since the grand mean 2.75 is greater than criterion mean 2.5, it means that the perceived attitude of senior secondary school students towards classroom learning is high in Egor local government.

Research Question Two

Table 4.2: what are the attitude of senior secondary school students towards their learning environment?

S/N	ITEMS REMARKS	MEANS	STD
1.	I do not like attending my Biology AGREE Classes because my biology laboratory	3.50	0.783
2.	My school is very noisy because of DISAGREE Where it is situated	1.63	0.603
3.	There are not enough chairs and AGREE Table in my school library	3.40	0.793
4.	I prefer biology taught in the classroom AGREE	1.58	0.762
5.	I enjoy my biology practical class in AGREE The laboratory	3.39	0.920
6.	Inadequate laboratory affects my AGREE Performance	3.47	0.933
TOTAL MEAN		2.83	

Grand Mean = 2.83

From table 4.2; items one, three, five and six has a mean of 3.50, 3.40, 3.39 and 3.47 respectively which indicate that the respondents agree. Since the grand mean 2.83 is greater than criterion mean 2.5, it means that the attitude of senior secondary school students towards learning is high in Egor local government.

Research Question Three

Table 4.3: Do senior secondary school students in Egor local government perceive their learning environment as a factor affecting their performance?

S/N	ITEMS	MEAN	STD	REMARKS
1.	My school library does not have Current textbook in biology	2.99	0.827	AGREE
2.	Lack of good ventilation system affects My performance and health	2.17	0.965	DISAGREE
3.	Lack of illumination in my class affects My performance	2.26	1.046	DISAGREE
4.	The lack of laboratory in my school greatly affects my performance in science subjects	2.97	1.006	AGREE
TOTAL MEAN				2.59

Grand Mean = 2.59

From table 4.3; items one and four has a mean of 2.99 and 2.97 respectively which indicate that the respondents agree. Since the grand mean 2.59 is greater than criterion mean 2.5

Discussion of Findings

The following were the findings of the study;

- Students have a negative perception o their biology learning environment in the teaching and learning of biology
- Students reported that dilapidated biology laboratory, lack of enough chairs and table in the library and inadequate laboratory affects their attitude toward their learning environment.
- Students also reported that lack of current biology textbook in their library, absence of a laboratory are actors that affects their performance
- Students reported that facilities that are no longer in use, classroom sitting arrangement and lack of good lighting system affects their perception of their biology learning environment

It was found out 16 years and above responded more, Gender did not influence student perception of their biology learning environment in the teaching and learning of biology as both male and female students have a negative perception of their learning environment. Age of student influenced students perception as only student aged 16 and above have a high frequency.

The challenges students' Face in their biology learning:

- Inadequate laboratory/lack of laboratory
- Lack of current textbook in the library
- lack of chairs and tables in the library
- lack of a conducive classroom environment

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

This chapter presents the summary, conclusion and recommendation of the study, based on the findings from the analysed data. It also presents suggestion or further studies

Summary

The study was designed to examine Biology students' perception to their Biology learning environment in the teaching and learning of Biology in Egor local government area of Edo state. A survey research design was adopted or the study.3 research questions were raised to guide the study. From the 15 schools in Egor local government area, 3 schools were randomly selected or this surey.in each of the randomly selected schools, a class in ss2 was randomly selected and rom which 156 students were randomly selected or this survey.

The instrument used or the data collection or the study was a questionnaire tagged "students' perception of their biology learning environment in the teaching and learning environment " developed by the researcher was used or data collection. The instrument is made up of two sections, A and B. Section A is structured to elicit demographic data from participants such as sex and age.

Section B focuses on student s perception to their biology learning environment. this section is a 4-point likert scale o strongly agree{SA}=4 points, agree{A}=3 points, disagree{D}=2 points and strongly disagree{SA} =1 points. Data collected were analysed using descriptive statistics such as frequency counts, percentage, mean and standard deviation.

Conclusion

We believe that environmental factors can have a positive influence in any subject anywhere, not only in biology. Our research has shown that the location is an important factor; however, the organization of the courses and being together for a whole week are additional key factors. The participants have developed further as teachers and use pedagogical biology as a teaching strategy after the course. They have been sharing their knowledge with one another and with colleagues.

Recommendation

Based on the findings of this study, it is recommended that

- Government should provide standard school building with adequate library and laboratory well equipped with necessary instrument

- Teachers should encourage students to enable them change their perception to their learning environment

Suggestions for further studies

Based on the conclusion and recommendation of this study, the following suggestion for further research

- This study should be replicated in other parts of the state using different population {e.g. tertiary institution, school location-urban versus rural school}
- The research focused on students' perception of their biology learning environment in the teaching and learning of biology.

REFERENCES

- Afif, Z. (2010), The relationship between grade 11 Palestinian attitudes toward biology and their perceptions of the biology learning environment. *international journal of science and mathematics education*.
- Akane, S. (2007) Attitude of Japanese students in relation to biology.
- Aki Nbobola, A. O. (2011a) visual, auditory and kinesthetic learning styles and students achievement in Nigeria senior secondary school physics IRCAB.
- Akinbobola, A.O & Afolabi F. (2010) Analysis of science process skills in west African senior secondary school certificate physics practical examination in Nigeria Bulgarian journal of science and education policy, 94 ,32-47.
- Aldridge, Jill & Barry Fraser. 2000. A cross sectional study of classroom learning environment in Australia and Taiwan. *Learning Environment Research* 3:101-34.
- Asiyai R. (2004) students' perception of the condition of their classroom physical learning environment and its impact on their learning and motivation.
- Brooks, D. Christopher (2012). Space and Consequences: The Impact of Different Formal Learning Spaces on Instructor and Student Behavior. *Journal of Learning Spaces*, 1(2).
- Chiang, C and Lai, C (2008) Acoustical environment evaluation of joint classrooms for elementary schools in Taiwan. *Build. Environ.* 43, 1619-1632.
- Dunn R . Krinsky .J.S.Murray J.B & Quinn ,P .J. (1985). Light up their lives ; A review of research on the effect of lighening on childrens' achievement and behavior.
- Fernandez, AC, Huang, J, and Rinaldo, V. (2011). Does Where a Student Sits Really Matter?–The Impact on Seating Locations on Student Classroom Learning. *International Journal of Applied Educational Studies*, 10(1).

- Francescucci, A and Laila Rohani, L. (2019) Exclusively Synchronous Online (VIRI) Learning: The Impact on Student Performance and Engagement Outcomes. *Journal of Marketing Education* 2019, Vol. 41(1) 60–69.
- Harvey EJ, Kenyon MC. (2013). Classroom Seating Considerations for 21st Century Students and Faculty. *Journal of Learning Spaces*, 2(1).
- Houghton, A.G. & MORRIS D.R (2011) secondary school selection. *Journal of mathematical and statistical psychology*.
- Hutchison L. (2004) educational environment .ABC of learning and teaching.
- Jago, E & Tanner, K. (1999). Influence of the school facility on student achievement. Retrieved march, 3,2011.
- McCorskey JC and McVetta RW. (1978). Classroom Seating Arrangements: Instructional Communication Theory Versus Student Preferences. *Communication Education*, 27, 99-111.
- NABT 92004) Roles of laboratory and field instruction in biology education. available [Http//www.nabt.org](http://www.nabt.org).
- Onwuachu, C and Nwakoriobi, E. (2009). students evaluation of classroom interactions of their biology teacher; implication for curriculum implementation. *Journal of librarianship and information science in Africa* 3(1) 349-361.
- Otami, D.C, Ampiah, J.G, Anthony-krueger, C. (2012). Factors influencing elective science students' perception of their biology classroom environment in low and high academic achieving schools in the central region of Ghana. *International Journal of Research Studies in Education*. Vol 1(1),35-46.
- Pulay A.S (2010) Awareness of day lightning on students' learning in an educational facility. university of Nebraska –lincoln ,Lincol
- Rands ML and Gansemer-Topf AN. (2017). The Room Itself is Active: How Classroom Design Impacts Student Engagement. *Journal of Learning Spaces*, 6(1).

- Semar, K. (2011) the Colorado learning attitude about science survey for use in biology. CBE life science education.
- Teaonis, J. telli, S, & tekkaya C. (2010) learning environment profile of Turkish secondary school biology classroom. learning environment research.
- Watts, L. (2016) Synchronous and Asynchronous Communication in Distance Learning: A Review of the Literature. Quarterly Review of Distance Education, 17(1), 23-32.
- Weinbury, M. (1995) Gender differences in student attitude toward science journal of research in science teaching.

**DEPARTMENT OF CURRICULUM AND INSTRUCTIONAL
TECHNOLOGY**

FACULTY OF EDUCATION

UNIVERSITY OF BENIN

QUESTIONNAIRE ON:

**INFLUENCE OF LEARNING ENVIRONMENT ON THE TEACHING
AND LEARNING OF BIOLOGY IN SENIOR SECONDARY SCHOOL IN
EGOR AREA LOCAL GOVERNMENT**

Dear Respondent,

I am an undergraduate student of the aforementioned university carrying out a research on the “**Students Perception of their Learning Environment to The Teaching and Learning of Biology in Senior Secondary School in Egor Local Government Area**”. Your kind cooperation would be highly appreciated. Any information volunteered is purely for research purpose and will be treated with utmost confidentiality.

Thank you.

SECTION A: (DEMOGRAPHIC INFORMATION) Please supply the following information in the spaces provided.

Name of school:

Please, kindly tick (✓) the section that is applicable to you.

1. Sex: Male [], Female []
2. Age: 0-5yrs [], 6-10 yrs [], 11-15 yrs [], 16 and above []

SECTION B

S/N	ITEMS	SA	A	D	SD
1	The toilet facilities in my school are no longer in use				
2	Most of the facilities are no longer working				
3	I do not like my classroom sitting arrangement				
4	My school is located too close to the market				
5	There are No good lightening system in my school				
6	I do not like attending my biology classes because my biology laboratory is dilapidated				
7	My school is very noisy because of where it is situated				
8	There are not enough chairs and table in my library				
9	I prefer biology taught in the classroom				
10	I enjoy my biology practical class in the laboratory				

11	Inadequate laboratory affects my performance				
12	My school library does not have current textbooks in biology				
13	Lack of a good ventilation system affects my performance and health				
14	Lack of illumination in my class affect my performance				
15	The lack of laboratory in my school greatly affects my performance in science subject				