

STRATEGIES FOR ENHANCING SENIOR SECONDARY STUDENTS INTEREST IN BIOLOGY IN OWERRI MUNICIPAL COUNCIL OF IMO STATE

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ABSTRACT

This research focused on strategies for enhancing senior secondary school students' interest in biology in Owerri. Three research questions were formulated in accordance with the purpose of the study. Related literature was reviewed. The method used in this research was descriptive survey design. The researcher employed the use of interest inventory scale as instrument for data collection. Two hundred and fifty nine interest inventory scale were administered to both teachers and students of the four schools of the study. The result of the findings includes, field trip, internet as learning tools, participating in classroom discussion as strategies that the teacher will use to make the study of biology interesting. Based on the findings, recommendations were made amongst others that more time should be allocated in the school time table for teaching of biology and most especially for practical experiment.

INTRODUCTION

Education has been defined by writers, scholars and specialists from different perspectives. Education is derived from the Greek word Educere; Education is the process of facilitating learning, knowledge, skills, values, beliefs and habits so as to achieve a desire goal (Wikipedia). According to Tanner and Tanner (2007), education is the act of helping children to achieve their goals and aspiration in life and how to learn what is worth knowing. To achieve the goal of a social institution, the school is one of the basic social institutions meant for the inculcation of knowledge and behavioural modification of human kind. Hence, National Policy on Education (2009) states that while the senior secondary will be both Pre-vocational and academic, it will teach all the basic subject that will enable students to acquire further knowledge and develop skills following the 6-3-3-4 education system, This system was introduced in 1998 to replace the 6-5-4 system, it was designed to bring about functionality in the system by producing result-oriented graduates in our society (Abdulwali, 2019).

The senior secondary school will be for those able and willing to have a complete six year secondary education, it is also indicated in the policy that this segment of secondary school will be comprehensive, but will have a core curriculum designed to broaden the student knowledge and outlook. The core curriculum is a group of 'subjects' in which every learner must take in addition to his/her area of specialization. All among the numerous subjects at the secondary level, the subject biology which is a science subject that deals with the study of plants and animals. The word biology is derived from the Greek words Bios meaning life and logos meaning study and so therefore biology is defined as the science of life and living organism.

According to Raven and Johnson (1991) biology deals with the study of living things, it undergoes the scientific methods which include hypothesis, inclusion theories, laws and methods of explanation. However, despite its general features as a science of living things as deduced by the world book Encyclopaedia (2001) also includes the ability to reproduce, grow and also respond to change in the environment.

Lately, literature reports have shown that among other science subjects that are offered by students in external exams, biology usually attracts the highest enrolment yearly. However, despite being a subject that everybody enjoys, it also enjoys a very high percentage of poor performance among the students and this result does not justify the interest in enrolment, thereby, creating room for more investigations on how to improve teaching and learning of biology. Interest is the quality of exciting curiosity or holding the attention (Cambridge English Dictionary 6th Edition). Having interest matters a lot in learning because without interest learning will not flow. Interest of the learners motivates them to understand what you are teaching and develop much interest to know what is being taught. Interest of the learner is very important in the study of every science subject. The interest include; employment of qualified teachers, good equipped laboratory, taking the learners to field trip, provision of good related textbook, inviting external qualified teachers on biology to teach the students. Strategy is the act of planning the best way to gain an advantage or achieve a success.

Strategy from Greek word 'Strategia', strategy is defined as a high level plan to achieve one or more goals under conditions of uncertainty (Maryc, 2020). Strategy is important because the resources available to

achieve these goals are usually limited. Strategies generally involves setting goals, determining actions to achieve the goal and mobilizing resources to execute the actions. Therefore, in this study the researcher seeks to look at strategies for enhancing senior secondary school students' interest in biology.

STATEMENT OF THE PROBLEM

During my teaching practice training in 2018-2019, I observed that many students performed poorly in Biology. This is attributed to various strategies adopted in teaching and learning which could include non-provision of adequate instructional materials, non-availability of well-equipped laboratory, unemployment of qualified teacher, among other things. There are also conflicting reports by researchers on the strategies for enhancing students' interest in biology. Due to the aforementioned experiences, the researcher seeks to find out how students' participation will increase their interest in the study of Biology, how the use of multiple resources will enhance their interest in the study of Biology, how relevance the study of Biology will be in their future careers.

Purpose of the Study

The main purpose of this study focuses on the strategies for enhancing senior secondary school students' interests' in biology in Owerri municipal. Specifically, this study intends to find out if:

- i. students' participation will increase their interest in the study of biology
- ii. the use of multiple resources will enhance their interest in the study of biology
- iii. relevance in their future careers will enhance their interest in the study of Biology

Significance of the Study

a. Theoretical Significance

According to Piaget, mental activity of the child is organized into structures; various mental activities are related to each other and grouped together in cluster which is known as patterns of behavior. Piaget believed that mental activity which is involved in cognitive organization is a process of adaptation which is divided into two opposing but inseparable process of assimilation and accommodation. The Piagetian theory thus, places the child as the principal agent in the teaching and learning situation. This

being the case, the teachers should encourage experimentation and manipulation of objects at his or her own rate.

The theory has direct implication in the strategies for enhancing senior secondary school interest in the studying of Biology in which the teacher acts as a facilitator of learning, guiding the students through a series of activities and problems which will enhance achievement by the learners.

b. Practical Significance

The researcher is of the hope that the work, when it will be finished, will benefit the students, teachers and curriculum planners.

When the teachers apply the strategies which is discovered, it will help the students to understand the lesson in biology thereby giving them a breakthrough in their senior secondary school examination.

Through this output, they will be able to identify some strategies that would make effective teaching of the subject, thereby applying these strategies and ensuring effective teaching.

The curriculum planners that will use these strategies to plan for future biology curriculum will enhance our national educational system. It will also help in improving teaching and learning of biology in the Nigeria educational system.

Research Questions

The following research questions will guide the study;

- i. How can students' participation enhance their interest in the study of Biology?
- ii. To what extent will the use of multiple resources enhance their interest in the study of Biology?
- iii. To what extent will relevance in their future careers enhance their interest in the study of Biology?

Scope of the Study

The study is limited to senior secondary school in Owerri municipal area of Imo state. This is because there is high rate in the loss of interest in Biology among students within Owerri municipal and due to the proximity of the area to me.

Review of Related Literature

The review of related literature was reviewed under the following sub-headings:

- Conceptual framework

- Theoretical framework
- Empirical Studies
- Summary of Related Literature Review

Conceptual Framework

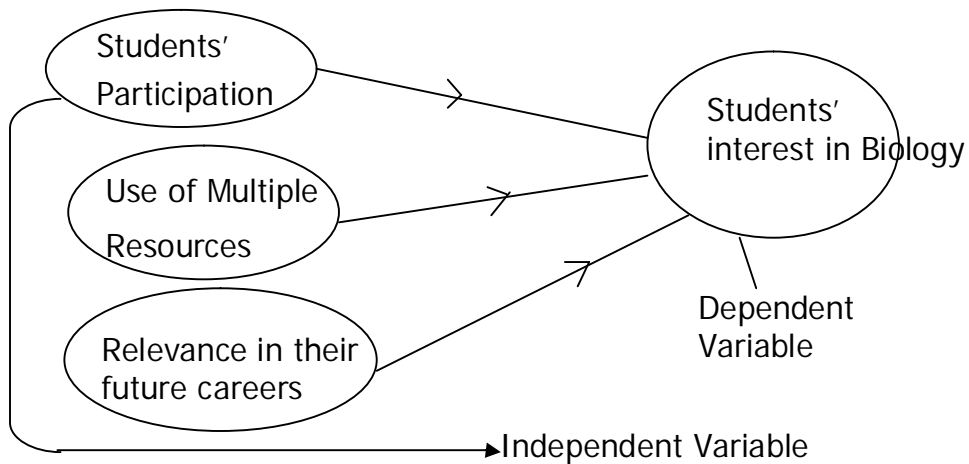
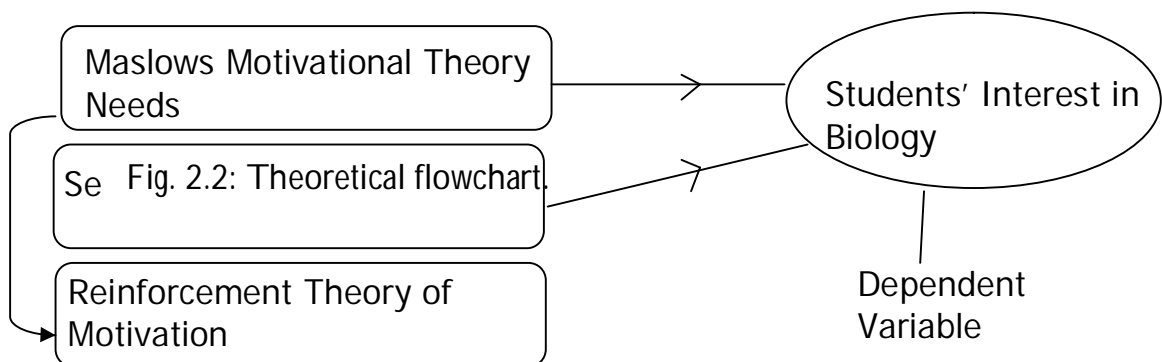


Fig. 2.1: Conceptual flowchart.

From the above diagram, it shows that when students are actively involved teachers using multiple resources, and topics, explaining the relevance of the study to their future careers, these will make the students to have interest in the study of biology.

Theoretical Framework



From the above diagram, it explains that learners are to be motivated because it comes from inside. When a student is motivated, the student works hard to achieve a positive and desired goal. So motivation is very important in teaching and learning because it makes student to develop

and have a greater interest in the study. Self determination is also important in teaching and learning because when a learner have determination of what to do and also choice of what to do, no matter how hard it may be the learner will do it to achieve a desired goal. So therefore self determination makes the learner to have more interest in the study. Reinforcing learner makes them to have interest in the study of biology. For instance when a learner is rewarded for performing well, it will strengthen the learner and have more interest in the study of biology.

Brief definition of Motivation, self determination, reinforcement

- i. Motivation is a desire that fuels an individual to perform or continue an action based on needs and wants of the individual.
- ii. Self determination is a person ability to make choices and manage their own life. It allows people to feel that they have control over their choices.
- iii. Reinforcement is a consequences applied that will strengthen an organism behaviour when ever that behaviour is preceded by a specific antecedent stimuli.

Maslows Motivational Theory

The theory was developed by Abraham Maslow (1970) and popularized by many researchers including Onyi (2007). According to Maslow, motivation is constant and never ending. Fluctuating and complex. He asserted that man always has needs to satisfy. These needs according to him are arranged in a hierarchical order starting from the basic or lower order needs to higher order needs. The hierarchy is categorized into two namely, deficit needs (physiological, safety, belonging and self esteem) and growth needs (self actualization). Maslow explained that once a particular needs is satisfied, it cases to be a motivator of behaviour and another needs emerges.

The above relates to this study because motivation is very important in learning. It is necessary at home and in school. One of the major problems confronting teachers and parents is that of motivating learners to perform assigned task to meet or even excel predetermined standards. Motivation energizes and sustains behaviour, direct and regulates behaviour and even enhances selective behaviour. A learner under motivated condition exhibits purposeful behaviour aimed at achieving, the set goals. The pupils are motivated to learn by their satisfaction of needs like physiological, shelter, food water, rest etc. Safety materials, love and

belonging. The satisfaction of these needs leads to the quest to satisfaction of these needs leads to the quest to satisfy higher ones which are self esteem and self actualization needs.

Self Determination Theory

This theory was propounded by Deci and Ryan (1985). The proponents stated that people are active organism with the growing tendencies geared towards mastering ambient challenges and integrating new experiences into a coherent sense of self. They stressed that these natural development tendencies do not operate automatically but rather requires on-going social nutrients and supports. According to them, the social context can either support or thwart the natural tendencies towards active engagement and psychological growth. Furthermore, the social context can catalyze to lack of integration, defense and fulfilment of need substitutes. The proponents remarked that the dialectic between the active organism and social context is the basis for predictions about behaviour experience and development. Self determination theory is related to this study based on the fact that individuals or group needs to be self determined to achieve a set goal. The habit of determination can help children in their academic achievement.

Reinforcement Theory of Motivation

Reinforcement theory of motivation was propounded by B.F. Skinner and his associates. In the year 1974, it states that individual behaviour is a function if its consequences. It is based on "level of effects" that is individuals behaviour with positive consequences tends not to be repeated. B.F. Skinner an American psychologist designed the operant conditioning theory of learning. This was adopted in teaching human beings. Skinner advised a special apparatus known as Skinner box. Skinner, in his theory viewed learning as a series of experiences which affects behaviour in the same way as conditioning. This through the selective use of reinforcement Skinner accounts for how new learning is acquired. It is upon the principle of active interaction of the learner with the environment that will enhance the interest of the students in the study of biology. Reinforcement theory of motivation is related to this study base on the fact that when learners are reinforced positive it enhances their interest in learning.

Empirical Studies

Igbo Florence (2017) carried a research work on perceived strategies for making teaching and learning of biology interesting in senior secondary schools. A case study selected secondary schools in Owerri Municipal Council of Imo State. Three research questions guided the study. The method used in the research was descriptive survey design. Out of the ten secondary school in Owerri Municipal council, four schools were used as sample out of the target population. Findings show that there are major strategies for making teaching and learning biology interesting in secondary school. The study recommended that teachers should be regular, government and stakeholders should provide the necessary facilities for teaching and learning of biology in our secondary school interesting and students should develop interest in biology since it is a compulsory subject.

The above review will help my work in the design of the study which is descriptive survey study. However i do not think the sample and sampling techniques used by the researcher are sufficient for this type of research. This will be corrected in my work. Odenu and Iro (2009) carried a research work on the strategies for making teaching and learning of biology interesting in secondary schools. Out of the nine secondary school in Owerri Municipal Council, four schools were used as sample out of the target population. The four secondary schools were Ikenegbu Girls secondary School Owerri, Boys secondary school Owerri, City secondary school Owerri and Development Secondary school. The sample that was used in carrying out the research was two hundred and fifty from each of the four schools. Three research questions guided this study. A structural questionnaire was used to edit response from the respondents. The suggestion was that teachers should make use of the teaching skills and the objective the teacher intends to achieve and the resources should be provided. The above review help in my present study in area of research design. The sample and sampling techniques are not actually good for this work, but will be corrected in my work. The target population also will be corrected in my work.

Summary of the Related Literature Review

This chapter revealed the work of other scientist in strategies for enhancing secondary school students' interest in biology. It is divided into sub-headings, such as conceptual framework, theoretical framework and empirical framework. Conceptual framework explained how independent

variable affect the dependent variable in interest of students using a flow chart, theoretical framework is based on the theories of motivation while empirical framework analyzed the statistical aspect of these studies.

Research Methods

This chapter looked at the following sub-topics, research design, area of the study, population of the study, sample and sampling technique, instrument for data collection, method of data collection, trail testing of the instrument, method of data analysis.

Research Design

The design for this study was descriptive survey. The choice of the design was because of its descriptive nature. The appropriate usage helped the researcher to get a better result. A descriptive survey is defined as that which uses survey to gather data about varying subject, Ufoha (2009).

Area of the Study

The area of the study was Owerri Municipal Council of Imo state. Owerri municipal has a total number of 10 public secondary schools where Biology is taught. It is one of the local government area in Imo state, which is located in the heart of Owerri city. It comprises of five villages namely, Amawom, Umuororonjo, Umuodu, Umuonyeche and Umuoyima. It is made up of civil servants, unemployed youths, traders, keke drivers and students. It has major roads like federal housing, Douglas road, Egbu road, Mbaise road, Onitsha road, Port Harcourt road, Aba road and Okigwe road.

Population of the Study

The population of this study was ten thousand nine hundred and seven (10,907) students and 30 biology teachers. This consists of all the biology students and teachers from government owned secondary school in Owerri Municipal. They are shown on the table below:

Table 3.1: Population Table

| S/N | Name of School | Number of Biology Teachers | Number of Biology Students | Total |
|-----|---|----------------------------|----------------------------|---------------|
| 1 | Boys Secondary School New Owerri | 2 | 479 | 481 |
| 2 | City College Owerri | 4 | 1604 | 1,608 |
| 3 | Comprehensive Development Secondary School. Douglas Road Owerri | 3 | 1141 | 1,144 |
| 4 | Emmanuel College Owerri | 3 | 531 | 534 |
| 5 | Government Secondary School Owerri | 4 | 2089 | 2,093 |
| 6 | Government Technical College Owerri | 3 | 1228 | 1,231 |
| 7 | Ikenegbu Girls Secondary School Owerri | 2 | 1583 | 1,585 |
| 8 | Imo Girls Secondary School Owerri | 3 | 938 | 941 |
| 9 | Urban Development Secondary School | 3 | 931 | 934 |
| 10 | Young Scientist College Owerri | 3 | 353 | 356 |
| | | 30 | 10,877 | 10,907 |

Source: Secondary Education Management Board (SEMB, 2021)

Sample and Sampling Technique

The sample size was two hundred and fifty nine (259) consisting of students and teachers. The sampling technique that was used is simple random sampling techniques without replacement due to the nature of the study for the student while purposive sampling technique was used for the teachers because only biology teachers were be selected. Four percent (4%) of the students that make up the population in each school was used. This was carried by balloting without replacement. Students were asked to queue up and four percent (4%) of the paper in the ballot were marked X while the rest were empty. Those that choosed the marked paper X, were used for the sample.

| S/N | Name of School | Sample of Students | Total Size |
|-----|--|--------------------|------------|
| 1 | Government Secondary School, Owerri | 2,089 | 83 |
| 2 | City College Owerri | 1,608 | 64 |
| 3 | Government Technical College Owerri | 1,231 | 49 |
| 4 | Ikenegbu Girls Secondary School Owerri | 1585 | 63 |
| | Total | | 259 |

Instrument for Data Collection

A researcher developed interest inventory scale that were used for data collection. The interest inventory scale (IIS) comprised of two parts, part A was the bio data of the respondents and part B contains 3 research question and question item.

4 point skilled questionnaire

Likert format and corresponding weights are shown below:

| | | | | |
|----|---|--------------------|---|----------|
| SA | - | Strongly Agreed | - | 4 points |
| A | - | Agreed | - | 3 points |
| D | - | Disagreed | - | 2 points |
| SD | - | Strongly Disagreed | - | 1 Point |

Validation of the Instrument

The instrument was face validated by two experts in Measurement and Evaluation. See Appendix 1.

Method of Data Collection

For the administering of the instrument, the researcher went to the school of the area of the study. The researcher went to the principal of the school office told him/her name, explaining herself, the purpose of coming to the school and with the help of the principal approval the researcher went ahead to administer the instrument to the appropriate classes with the help of the teachers. The instrument for the data collected was administered to the students during break period between 11:30am – 12:00pm, since the instrument was expected to elicit numerous responses from the respondents. They were given some time to go through the items in order to provide objective responses. The researcher collected the instrument the next day from the teacher that helped her to gather the instruments.

Trial Testing of the Instrument

The researcher went three private schools for trial testing of the instrument to know if the response gotten will correspond with the one in public schools.

Method of Data Analysis

The mean rating is used to analysis the data collected from the respondents. The mean of the scale is calculated.

Thus,

$$\bar{X} = \frac{\sum fx}{N}$$

$$\text{Therefore; } \bar{X} = \frac{4 + 3 + 2 + 1}{4} = \frac{10}{4} = 2.5$$

Hence, mean of 2.5 and above was accepted and those 2.5 below were rejected.

Where;

| | | | | |
|-----------|---|--------------------|---|----------|
| \bar{X} | = | Mean | | |
| \sum | = | Summation | | |
| F | = | Frequency | | |
| N | = | Total Number | | |
| SA | - | Strongly Agreed | - | 4 points |
| A | - | Agreed | - | 3 points |
| D | - | Disagreed | - | 2 points |
| SD | - | Strongly Disagreed | - | 1 Point |

Presentation and Interpretation of Results

The results of the study are presented and interpreted below according to their respective research questions.

Research Question 1: How can students participation enhance their interest in the study of Biology?

Table 1: Mean rating of how students participation enhance their interest in the study of Biology.

| S/N | Interest Inventory scale Items | SA | A | D | SD | Total | X | Decision |
|-----|---|-----|-----|-----|----|-------|------------|----------|
| 1 | The use of verbal and non-verbal cues encourages students' participation in teaching and learning biology | 100 | 80 | 59 | 20 | 259 | | |
| | | 400 | 240 | 118 | 20 | 778 | 3.0 | Accepted |
| 2 | Contributing to classroom discussion makes students to have interest in Biology | 160 | 80 | 19 | - | 259 | | |
| | | 640 | 240 | 38 | - | 918 | 3.5 | Accepted |
| 3 | Listening to students questions and answering encourages students' participation which enhances their interest in Biology | 150 | 90 | 10 | 9 | 259 | | |
| | | 600 | 270 | 20 | 9 | 899 | 3.5 | Accepted |
| | Mean Average | | | | | | 3.3 | |

Table one above, showed that the use of verbal and non-verbal cues encourages students' participation in teaching and learning of biology, contributing to classroom discussion makes students to have interest in biology, listening to students questions and answering encourages students' participation which enhances their interest in biology. The grand mean of 3.3 accepted that how students' participation enhance their interest in the study of biology.

Research Question 2: To what extent will the use of multiple resources enhances their interest in the study of biology?

Table 2: Mean rating of the use of multiple resources enhance their interest in the study of biology.

| S/N | Interest Inventory scale Items | SA | A | D | SD | Total | X | Decision |
|---------------------|---|-----|-----|----|----|-------|------------|----------|
| 4 | Using local experts and field trip makes teaching and learning of biology interesting | 111 | 103 | 30 | 15 | 259 | 3.2 | Accepted |
| | | 444 | 309 | 60 | 15 | 828 | | |
| 5 | Using internet as a learning tool motivates students interest in biology | 170 | 80 | 9 | - | 259 | 3.6 | Accepted |
| | | 680 | 240 | 18 | - | 938 | | |
| 6 | Service learning motivates students interest in Biology | 100 | 98 | 40 | 21 | 259 | 3.1 | Accepted |
| | | 400 | 294 | 80 | 21 | 795 | | |
| Mean Average | | | | | | | 3.3 | |

Table two above showed that using local expert and field trips makes teaching and learning of biology interesting, using internet as a learning tool motivates students interest in biology, service learning motivates students' interest in biology. The grand mean of 3.3 accepted that there are the best ways of implementing these strategies.

Research Question 3: To what extent will relevance in their future careers enhances their interest in the study of Biology?

Table 3: Mean rating of what extent will relevance in their future careers enhances their interest in the study of biology.

| S/N | Interest Inventory scale Items | SA | A | D | SD | Total | X | Decision |
|-----|---|-----|-----|----|----|-------|-----|----------|
| 7 | The study of biology help the students to broaden their factual and practical knowledge | 190 | 60 | 9 | - | 259 | 3.7 | Accepted |
| | | 760 | 180 | 18 | - | 958 | | |
| 8 | The study of biology will give students experience to be prepared and equipped to take the next step towards achieving their future careers | 152 | 60 | 31 | 12 | 259 | 3.4 | Accepted |
| | | 608 | 192 | 62 | 12 | 874 | | |
| 9 | The study of biology will grow the students social network towards advancing their future careers | 191 | 50 | 15 | 3 | 259 | 3.7 | Accepted |
| | | 764 | 150 | 30 | 3 | 947 | | |

| | | | | | | | | |
|--------------|--|--|--|--|--|--|-----|--|
| Mean Average | | | | | | | 3.6 | |
|--------------|--|--|--|--|--|--|-----|--|

Table three above, showed that the study of biology will help the students to broaden their factual and practical knowledge in their future career, the study of biology will give the students experience to be prepared and equipped to take the next step towards achieving their future careers; the study of biology will grow the students social network towards advancing their future careers.

The grand mean of 3.6 accepted that there are extent in which relevance in their future careers enhances their interest in the study of biology.

SUMMARY OF THE FINDINGS

The results can be summarized as follows:

Students' participation in classroom activities such as doing assignments, engaging in classroom discussion etc enhances their interest in the study of biology. When a teacher is autocratic, students' participation is low but when a teacher is not autocratic, it makes the students to have interest in the study. Teaching using multiple resources such as internet, field trips enhances the interest of the learners but when teachers do not apply these things, it reduces the interest of the learners. Teachers telling the learners the relevance and students also knowing the relevance of the study is very necessary and it makes them to have interest in the study of biology.

DISCUSSION OF FINDINGS

Research question one: How can students' participation enhance their interest in the study of biology?

This research question was tested using items 1 – 3 in interest inventory scale. The findings revealed that students participation enhances their interest in the study of biology in secondary schools.

In support of this claim Akinson (2019) states that students active in class activities enhances their interest in the study an Ofoha (2019) says that communication between teachers and learners enhances them to have interest in the study of biology.

Research Question Two: To what extent will the use of multiple resources enhances their interest in the study of biology?

To answer research question two, items 4 – 6 were used. The result of the findings indicate that the use of multiple resources enhances their interest in the study if biology. In line with the above, Bonka (2017) opined that is generally assumed that students will understand the things they see very

easily than listen to abstract ideas presented in words. Taking the students to field trip and using internet enhances their interest in the study of biology because field trip is that they will see it physically. Bello (1999) opined that use of multiple resources enhances both the learners and educators during teaching and learning process in any given environment. Research question three: To what extent will relevance in their future careers enhances their interest in the study of Biology?

This research question was tested using items 7 – 9 in the interest inventory scale. The finding revealed that relevance in their future careers enhances their interest in the study of biology.

This is in line with Agoha (2010) that students understands when they know the relevance of the study. When students have the factual and practical knowledge of the study, it arouses the interest of the learner in the study of biology.

CONCLUSION

The researcher discovered the strategies such as classroom discussion, use of verbal and non verbal cues, internet as a learning tools enhances the interest of the learners. Field trips and using local experts have also been discovered which if applied will enhance students interest in the study of Biology.

RECOMMENDATIONS

From the research findings, the following recommendations were made;

1. Students should develop interest in biology since it is one of the compulsory subjects.
2. More time should be allocated in the school time table for teaching of biology and most especially for practical experiment.
3. The teachers and principal should organize field trips and excursion to enhance the interest of the biology students in the subject.
4. The government should ensure adequate provision and inspection of adequate equipment to schools through the ministry of education.
5. The government should organize workshops and seminars for biology from time to time to enhance their interest in biology.

Educational Implications of the Study

The following are the implications of these findings to education.

If choices careers on biology are presented to students, they will develop interest in Biology. Educators should expose the study of biology, students practicing what they are taught in the classroom and outside the classroom develops their interest in the study of biology. Educators should expose the students to different multiple resources of learning by doing this, it makes students to have interest in the study of Biology and also put it into practice. Teachers encourages students to participate in classroom activities and the students themselves participating in classroom activities makes them to have interest in the study of biology.

Limitations of the Study

The problem the researcher experienced in the course of writing this project is insufficient fund. The researcher found it difficult to move round the whole secondary schools in Owerri municipal council of Imo State because of the huge amount of money that is involved.

Another problem encountered was time factor. Due to time factor, school activities and extra curricula activities, the study was limited to four secondary schools in Owerri Municipal council.

Suggestion for Further Studies

Based on the findings of these study and limitation of the researcher, the researcher wish to sought the following area for further studies;

This work was limited to biology students and teachers in secondary schools in Owerri Municipal Council. The researcher encourages other researchers to carryout similar study in other local governments in Imo state and in other states.

SUMMARY

This research focused on the strategies for enhancing senior secondary school students' interest in Biology in Owerri Municipal Council of Imo state. Three research questions were formulated in accordance with the purpose of the study. The research questions are how can students' participation enhances their interest in the study of Biology? To what extent will the use of multiple resources enhances their interest in the study of Biology? And to what extent will relevance in their future career enhances their interest in the study of Biology? And descriptive survey research method was used to explain strategies for enhancing senior secondary schools in Owerri municipal Council.

Finally, this study will no doubt be of utmost importance to curriculum planners in the works towards the improvement of educational system and perhaps lead to the restructuring of the school curriculum for effective teaching and learning, especially in Biology so as to achieve the educational goals and objectives.

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APPENDIX

INTEREST INVENTORY SCALE

PERSONAL DATA

Please respond to the questions by ticking (√) in the appropriate space
provided.

Name of School:

Sex: Male Female

Sate of Origin:.....

SECTION B

Kindly tick (√) in any box that represents your opinion in the following
questions.

(SA) – Strongly Agree, (A) – Agree, (D) – Disagree and (SD) Strongly
Disagree.

PART TWO

Research Question 1: How can student's participation enhance their interest in the study of Biology?

| S/N | Items | SA | A | D | SD |
|-----|---|----|---|---|----|
| 1 | The use of verbal and non-verbal cues encourage students participation in teaching and learning biology. | | | | |
| 2 | Contributing to classroom discussion makes students to have interest in Biology. | | | | |
| 3 | Listening to students questions and answering encourages students participation which enhances their interest in Biology. | | | | |

Research Question 2: To what extent will the use of multiple resources enhances their interest in the study of Biology?

| S/N | Items | SA | A | D | SD |
|-----|---|----|---|---|----|
| 4 | Using local experts and field trips makes teaching and learning of Biology interesting. | | | | |
| 5 | Using internet as a learning tool motivates students interest in Biology. | | | | |
| 6 | Service learning motivates students interest in Biology. | | | | |

Research Question 3: To what extent will relevance in their future careers enhances their interest in the study of Biology?

| S/N | Items | SA | A | D | SD |
|-----|---|----|---|---|----|
| 7 | The study of biology will help the students to broaden their factual and practical knowledge in their future career. | | | | |
| 8 | The study of biology will give student experience to be prepared and equipped to take the next step towards achieving their future careers. | | | | |
| 9 | The study of biology will grow the students social network towards advancing their future careers. | | | | |