

**THE PERCEPTION OF STUDENTS TOWARDS THE STUDY OF
BIOLOGY EDUCATION**

BY

**Ediagbonya OSARUMWENSE
EDU1608725**

**FACULTY OF EDUCATION
UNIVERSITY OF BENIN
BENIN CITY**

JULY, 2021

**THE PERCEPTION OF STUDENTS TOWARDS THE STUDY OF
BIOLOGY EDUCATION**

BY

**Ediagbonya OSARUMWENSE
EDU1608725**

**A PROJECT SUBMITTED TO THE DEPARTMENT OF
CURRICULUM AND INSTRUCTIONAL TECHNOLOGY, FACULTY
OF EDUCATION, UNIVERSITY OF BENIN, BENIN CITY IN
PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE
AWARD OF THE BACHELOR OF SCIENCE (Ed) DEGREE IN
BIOLOGY**

JULY, 2021.

CERTIFICATION

We, the undersigned hereby certify that this project work was carried out by Ediagbonya Osarumwense of the Department of Curriculum and Instructional Technology, University of Benin, Benin City and approved as adequate in scope and quality in partial fulfillment of the requirement of the award of the B.Sc. Ed. in Biology Education.

Mrs. Uyi-Osaretin S. I.
Project Supervisor

Dr. (Mrs.) F.N. Ofuani
Project coordinator

Date: _____

Date: _____

Prof. E.O.S Iyamu
Dean, Faculty of Education

Date: _____

DEDICATION

This work is dedicated to my parents for their support throughout the period of my study.

ACKNOWLEDGEMENT

I want to give thanks to God almighty, the giver of life, wisdom, knowledge, understanding, strength, inspiration, guidance and protection for a successful completion of this study in The University of Benin, My sincere appreciation goes to my kind hearted supervisor Mrs. Stella Uyi-Osaretin for her mentorship and proper corrections and contribution towards the success of my project and for her magnificent contribution to the advancement in the field of education.

Also profound gratitude goes to the Dr. (Mrs.) R.J. Musa the HOD of my department for her great work in the department also thanks to the former HOD Dr. John Egharevba for his massive support and his fatherly advice and contribution in the success of this project work.

Also profound gratitude goes to Dr. (Mrs.) Osa-Omoregie my course adviser for her timeless effort and motherly advice given to me per time in my final stay in Uniben. Also thanks to Dr. (Mrs.) Awanbor for her motherly advice and her passion in transferring of knowledge. I also appreciate all lecturers in the Faculty of Education and Department of Curriculum and Instructional Technology who have provided me with wealth of information in my stay in Uniben.

My deepest appreciation and sincere thanks goes to my parents; Mr. & Mrs. Osaro Ediagbonya for their parental support prayers from the very beginning to this level. Thanks to my siblings; Mr. Nosakhare Ediagbonya, Mr. Bright Ediagbonya, Mrs. Charity Joshua and Faith Ediagbonya for their support and also to my uncles and aunties for their moral and financial support towards me, my sincere appreciation also goes to my friend Joshua Imonkhai for his support during this project work.

TABLE OF CONTENTS

Title page	i
Certification	ii
Dedication	iii
Acknowledgements	iv
Table of Content	v
Abstract	vi
CHAPTER ONE: INTRODUCTION	
Background to the Study	1
Statement of Problem	3
Research Question	4
Purpose of the Study	5
Significance of the Study	6
Scope and Delimitation of the Study	7
Operational Definition of Terms	7
CHAPTER TWO: LITERATURE REVIEW	
The concept of Biology Education	9
Objectives of Biology Education	11
Concept of Perception	13
Student Perception Towards the Study of Biology Education	15
Parents Socio-economic Status and Student Perception Towards Biology Education	18
Student Perception of Biology Base on Gender	21
Lecturer Teaching Style and Student Perception Towards the Study	

of Biology Education	24
Subject Matter	25
Summary of Literature Review	28
CHAPTER THREE: RESEARCH METHODOLOGY	
Research Design of the Study	30
Population of the Study	31
Sample and Sampling Technique	31
Instrumentation	31
Validation of the Instrument	32
Reliability of the Instrument	32
Method of Data Collection	32
Method of Data Analysis	32
CHAPTER FOUR: PRESENTATION OF RESULT AND DISCUSSION OF FINDINGS	
Presentation of Results	33
Discussion of findings	43
CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS	
Summary	46
Conclusion	47
Recommendations	48
Suggestion for further Studies	49
References	50
Appendix	52

LIST OF TABLES

Table 1:	Demographic Profile of Respondents	33
Table 2:	Responses on the Perception of Student Towards the Study of Biology Education in the University of Benin	34
Table 3:	Responses on Sex Playing a Role on how Student Perceive the Study of Biology Education	36
Table 4:	Responses on the Effect of Socio-economic Status of Student Perception Towards the Study of Biology Education	39
Table 5:	Responses on the Effect of Lecturer Teaching Style on Students Perception Towards the Study of Biology Education	41

ABSTRACT

The purpose of this study is to ascertain the perception of students towards the study of Biology Education in the University of Benin. The population of the study consisted of all Biology Education students in the University of Benin from 100 level to 400 level. Twenty-five students were randomly selected from each level. Four research questionnaires were raised to guide the study.

The instrument used for carrying out this study was a questionnaire. The instrument was validated by two lecturers in faculty of Education as well as the project supervisor. The questionnaires were administered to the students and collected by the researcher. The data collected was analyzed using simple percentage, frequency count and mean score. The result from the analysis revealed that students think Biology Education is not applicable to other course area, difference in gender do not play a role on how students perceive the study of Biology, most students think the study of Biology Education will place them below societal class hence students do not feel motivated when studying the course, lecturers teaching styles do not address students learning styles.

Based on these findings, the following recommendations are made: The government should invest more in education by increasing the salaries of the teachers in order to encourage more students to take teaching as a first choice and serve as a positive intrinsic motivation for students to study Biology Education, Provision of more facilities in laboratories because Biology majorly deals with practicals and students should experiment more in the laboratories by doing this, biological concepts becomes more real and interesting to students.

CHAPTER ONE

INTRODUCTION

Background to the Study

The teaching profession generally has been misunderstood and misrepresented in the society and by some student that go into teaching. According to Ajayi (1982) the teaching profession has very low status and is looked down by the same society that it strives to build. The researcher observed that most students feel that a career in any course in education is a wrong choice or waste of time most especially Biology education as course of study. Perception of the students towards the study of the course; Biology education as a sub area in education department has become a concern to researchers given the constant decline in the academic performance of biology education students in universities across the nation.

Osborne, Simon and Collins (2003) defined perception as the way something is regarded, understood or interpreted. Perception as noted by Ampich, (2006) influences human behavior. Kendra (2020) asserted that Perception is

the sensory experience of the world. It involves both recognizing environmental stimuli and actions in response to these stimuli. Through the perceptual process, we gain information about the properties and elements of the environment that are critical to our survival (Kendra 2020).

Perception not only creates our experience of the world around us; it allows us to act within our environment. Collins (2003) asserted that students' attitude as well as students' perception of relevance of the course of study play significant role in determining student interest. Hence, According to Macbeath and Mortimore, 2001; Çimer, 2004; Ekici, (2010), in determining factors that negatively affect students' learning in biology, understanding students' views on what makes their biology learning effective is crucial, as many researchers suggest that in order to improve the quality of teaching and learning of Biology, students' views must be taken into consideration (Macbeath and Mortimore, 2001; Çimer, 2004; Ekici, 2010). They argue that what students say about teaching, learning and schooling is not only worth listening to but provides an important perhaps the most important foundation for thinking about ways of improving teaching and learning of Biology.

Phoenix (2000) states that student views of teaching may reflect the ways that they learn best. Indeed, schools that acknowledge the significance of student views have found that these views can make a substantial contribution to classroom management, to learning and teaching, and to the school as a social and learning place (Macbeath, 2000). It is thought that how students perceive the learning environment in biology affects their attitudes towards biology and its learning (Çakıroğlu, 2003; Telli, 2009). Therefore, understanding students' perceptions of and factors influencing their perceptions toward the study of biology will help policymakers, lecturers and university heads plan in enhancing students' interest towards the study of Biology Education.

Statement of the problem

Society has always placed importance and prestige to courses like medicine, law, economics, etc. hence, more attractive and appreciated by our society. This societal view has also been extended to students as they would not choose as a course of study Biology education.

Disheartening to discover that even students who find themselves studying educational courses; Biology education especially tend to view and take the course of study; not important to their life and future (a waste of time). And these perceptions of students towards Biology education as a course of study tend to affect negatively the students' academic performance given that they do not take too seriously their course of study. Hence, make no plan for a strategic and effective study habit for their course of study.

Giving it some thoughts, the researcher feels that there may be factors outside societal views influencing students' perception towards the study of biology education and if understood could help school administrators and lecturers in reshaping positively students' perception towards the study of Biology education. It is upon this premises, the research is embarked on.

Research Questions

The following research questions are raised to guide the study:

1. What is the perception of students towards the study of Biology Education in University of Benin?

2. Do students perceive that sex play's a role on how students perceive the study of Biology Education?
3. Does socio-economic status affects students' perception towards the study of Biology Education in university of Benin?
4. Does lecturer teaching style affect student's perception towards the study of Biology Education?

Purpose of the study

The purpose of this study is to investigate the perception of student towards the study of Biology education in university of Benin. Specifically, the study seeks to know:

1. The perception of students towards the study of Biology Education in University of Benin.
2. Determine if students perceive that sex play a role on how student perceive the study of Biology Education.
3. Determine if socio-economic status affects students' perception towards the study of Biology Education.

4. Determine if the lecturer teaching style affects students' perception towards the study of Biology Education.

Significant of the study

The findings of this study are of benefit to researchers, students, lecturers and university heads.

The findings of the study has significant benefits to researchers as the findings of the study properly documented will add to the body of literature reviews given that there exist little or no literature in the line of the study. And It will also form a pedestal for further research in the line of this study.

The findings of this study would be of benefit to students as it would expose them the importance and relevance of Biology education as a course of study. This information would trigger their interest towards the study of Biology education and cumulatively improve their performance in the course of study.

Lastly, the findings of the study would be of benefits to lecturers and university heads as it would unravel the perception and factors influencing

students' perception towards the study of biology education. This information would help the lecturers and university heads understand how to reshape the students' perspective and also help the better appreciate biology education as a course of study.

The Scope and Delimitation of the Study

The study is focused on the perception of student towards the study of Biology education in university of Benin. The study covers possible factors that may influence students' perception towards the study of Biology Education and the Biology Education Students in faculty Education, university of Benin, forms the population of the study. It is delimited to Biology Education students' in Faculty of Education, University of Benin, Benin City, Edo State.

Operational Definition of terms

Biology Education: A career that primarily involves introducing students to the patterns of scientific process that shape our world, that also involves

developing curricula, presenting lessons, grading papers, evaluating student performance and other basic school duties.

Perception: The way in which something is regarded, understood or interpreted.

Interest: A great attention and concern from someone or something; intellectual curiosity

CHAPTER TWO

LITERATURE REVIEW

The review of literature is carried out under the following sub-headings:

- Concept of Biology Education
- Concept of Perception
- Perception of Students towards the study of Biology Education
- Students' Perception towards the Study of Biology Education based on Gender
- Socio-economic Status Students' Perception towards the Study of Biology Education
- Lecturer Teaching Style and Students' Perception towards the Study of Biology Education
- Summary of Literature Reviewed

Concept of Biology Education

Biology deals with the study of many varieties of lives. It is a natural science concerned with the study of living organisms including their structure,

function, growth, distribution and taxonomy (Magna, 2002). Biology is the study of the structure, function, heredity and evolution of all living things: micro-organisms, fungi, plants and animals.

However, despite the broad scope of biology, there are certain general and unifying concepts within it that govern all the studies and researchers that consolidate it into simple and coherent field. In general, biology recognizes the cell as the basic unit of life, genes as the basic unit of heredity, evolution as the engine that propels the synthesis and creation of new species. It is also understood today that all organisms survived by consuming and transforming energy and by regulating their internal environment to maintain a stable and vital condition. Sub-disciplines of biology are defined by the scale at which organisms are studied, the kinds of organisms studied and the methods used to study them.

For example Biochemistry examines the rudimentary chemistry of life, molecular biology studies the complex interactions among biological molecules:- Botany is the study of the biology of plants: cellular biology which examines the basic building-blocks of all life cells, physiology which

examines the physical and chemical functions of tissues, organs and organ systems of an organism. Evolutionary biology, examines the processes that produced the diversity of life: Ecology examines how organisms interact in their environment: Zoology, the study of animals: Pathology the study of disease of plants and animals and methods of controlling them. Entomology, the study of insects: Algaeology which is the study of algae, parastology, the study of parasites and microbiology the study of microorganisms.

Biology Education therefore is education in biology which generally aims at training individuals to understand himself or herself, the parts of his or her body and how the body parts function. Hence, the application of principles of education in teaching and learning of biology is known as biology education. It is the art of teaching and training in order to inculcate or transfer the knowledge of biology to students

Objectives of Biology Education

The study of biology can have a multitude of aims and objectives largely; it is studied to allow a person to enter a specific field of employment. Other aims for studying biology are intellectual, ethical and pragmatic: to increase

knowledge about all types of organisms, to encourage greater benevolence in the relationship between humans and the natural environment and to implement biological skills into various technologies or management techniques (Heather, 2007). The study of biology aims to increase understanding of living systems and to allow one to consider the systems in relationship to the self and other organisms in the natural environment. Biology has many applications, in the natural environment. Studying biology however allows health care workers to understand the living systems of the body and to apply the knowledge in direct ways to recover and maintain the physical health of both animal and human patients

The major objectives of biology education in Nigeria are

- To provide the youth with sound knowledge of the basic principles and techniques of biology.
- To produce knowledgeable, highly motivated, professional and effective teachers of biology who will be able to develop in students an appreciation and understanding of biological processes and principles.

- To develop confidence in biology teachers and enhance the ability to adapt to the changing situation in science and the technological oriented society.
- To view biology as a processes of inquiry into the living world.
- To analyze the activities of living things in their environment.
- To demonstrate practical skills in handling scientific apparatus.
- To demonstrate excellence and professional competence in teaching secondary school biology.
- To inculcate positive scientific attitude and value in the society and promote positive disposition towards biology, science and the scientific enterprise.
- To apply concepts and methods acquired in new areas of study and in everyday situation (minimum standard for NCE teachers, 2008).

Concept of Perception

Perception is a concept, which arises from the attempt to account for the observed regularities in the behavior of individual persons, the quality of which is judged from the observed evaluative responses one tends to make.

An individual can show positive or negative perception towards a particular object, subject or idea. Kind et al. (2007) viewed perception as having different components which includes cognitive (knowledge, beliefs and ideas); affective (feeling, like, dislike,) and behavioural (tendency towards an action). The perception that one has towards an object makes one to make judgment as to whether the object is good or bad m harmful or beneficial, pleasant or unpleasant important or unimportant (Crano and Prislin 2006).

Epstein (2005) identified six areas of parental involvement in their children's academic activities. These are parenting, communicating, volunteering, learning at home, and decision making and collaborating with the school. According to him, if they are actively involved in all these area, no doubt it will stimulate in school and influence academic achievements. Due to the great influence of perception on educational pursuits, it is worthwhile to identify the determinants of perception towards a particular object, subject or idea, the chief of which are hereditary factors, body, state, direct experience and communication. Hereditary factors (that is, inheritance from parents) form the basis of all human activities including developing of perception as well as learning. Sometimes unconsciously parents and

guidance through non-verbal communications transfer their fear, likes and dislikes to children via bodily movements and facial expression.

Osborne, Simon and Collins (2003) defined perception as the way something is regarded, understood or interpreted. Perception as noted by Ampich, (2006) influences human behavior. Kendra (2020) asserted that Perception is the sensory experience of the world. It involves both recognizing environmental stimuli and actions in response to these stimuli. Through the perceptual process, we gain information about the properties and elements of the environment that are critical to our survival (Kendra 2020). Perception not only creates our experience of the world around us; it allows us to act within our environment.

Students Perception towards the Study of Biology Education

Perception of the students towards the study of the course; Biology education as a sub area in education department has become a concern to researchers. Collins (2003) asserted that students' attitude as well as students' perception of relevance of the course of study play significant role in determining student interest. Hence, According to Macbeath and

Mortimore, 2001; Çimer, 2004; Ekici, (2010), in determining factors that negatively affect students' learning in biology, understanding students' views on what makes their biology learning effective is crucial, as many researchers suggest that in order to improve the quality of teaching and learning of Biology, students' views must be taken into consideration (Macbeath and Mortimore, 2001; Çimer, 2004; Ekici, 2010). They argue that what students say about teaching, learning and schooling is not only worth listening to but provides an important perhaps the most important foundation for thinking about ways of improving teaching and learning of Biology.

According to Macbeath and Mortimore, (2001); Çimer, (2004); Ekici, (2010), negative thoughts about biology education as a course of study by students affect their learning in biology. Thus making imperative, to understand students' views on the essentialities of biology education to life. To improve the quality of teaching and learning of Biology education, students' views must be taken into consideration by lecturers and school heads (Macbeath and Mortimore, 2001).

Phoenix (2000) states that student views of teaching may reflect the ways that they learn best. Indeed, schools that acknowledge the significance of

student views have found that these views can make a substantial contribution to classroom management, to learning and teaching, and to the school as a social and learning place (Macbeath et al., 2000). It is thought that how students perceive the learning environment in biology affects their attitudes towards biology and its learning (Çakıroğlu et al., 2003; Telli et al., 2009). Therefore, understanding secondary school students' perceptions of biology will help policymakers, teachers and teacher educators plan more effective teaching activities that can help students learn biology better and have more positive attitudes towards it.

Trumper (2006) also in his study on attitude toward biology and influence of high school students' opinions on biology education; stated that negative perception and opinion on biology lessons, lead to more negative attitudes. Also Hansen and Birol (2014) found out that attitudes of students toward biology become significantly more expert-like from the first year to the fourth year of the program. Similarly, Gardner, (2016) found out that there is significant correlation between perception of biology education students and attitudes toward biology as well as their learning outcome.

Parents Socio-Economic Status and Students Perception towards Biology education

Home influence can be identified as very important variable that have potential for promoting directly or indirectly student academic achievements (Fehrmann et al., 2007; Blooms, 2004). Socioeconomic status (SES) encompasses not just income but also educational attainment, financial security, and subjective perceptions of social status and social class. Socioeconomic status can encompass quality of life attributes as well as the opportunities and privileges afforded to people within society. Furthermore, Socio-economic status is a consistent and reliable predictor of a vast array of outcomes across the life span, including perception of an individual.

Children who are academically successful hold positive attitude school and are well adjusted emotionally and socially as a result of parents input (Jeynes, 2005). Parents' high aspiration sometimes make them want to influence students' choice of course of study. Stelios & Akiba, (2009) asserted that parents who couldn't read or study a particular course in the university, in most cases would want their children to study those courses.

For example a parent who couldn't study law or medicine due to constraints such as finance and time, do pressurize their children to study those aforementioned courses so as to gratify their self-desires (Stelios & Akiba, 2009).

The effectiveness with which parents are able to motivate their children to learn science by way of enhancing their home and school learning environments is a function of their socioeconomic status. The fact that there is a positive relationship between parental influence, which is a indices of socio-economic status of parents and the academic progress of their children is established by Lee and Croninger (1994); Willms (1986); Sui-chu and Willms (1996); Oluwatelure (2009). Our modern society is faster paced, globally networked, technologically oriented and requires workers who can solve problems and think critically. The Americans believed that poor ability in science, mathematics, and technology will certainly hamper their leading role in the global village Knuth et al. (1991). Hence the initiative that lead to the creation of a community-based collaborative approach, involving the family-school-community partnership, to establish “after school programme”, which was meant to improve the whole child. The negative

attitude of Nigerian students which is confirmed by poor performance in science; (Olatoye, 2004b; Ogunniyi, 1996); needs to be reinforced through collaborative efforts of parents/guardians, communities and the school. Parents, irrespective of their economic status, are important stakeholders in the education sector and can actually challenge the incompetent nature of science teacher, lack of commitment as well as the slow national approach to science education reform. In the quest for quality education in Africa, (ADEA, 2003 and 2004) challenged the participants to focus on ensuring that schools are effective in creating a supportive environment for teachers and for classrooms where all students have the opportunity to acquire the knowledge, the skills, the attitudes specified in the curriculum. In the year 2006 edition of the IDEA biennial meeting, the impact of early childhood programme on later school performance and in the preparatory of children for formal schooling. They also found that literate parents will actively support the education of their children. There is an emphasis on the culture of quality as the only avenue through which schools in Africa can develop and survive. There is the belief that centralization should give way to parental and civil society participation. It was reported that in the

exploration of nine countries in Africa, little parental or civic involvement was found. Parents and community participation in the Sub Sahara African schools, is seen as a key element of success (Dalin, 1994).

Students Perception of Biology Based on Gender

Zeidan and Jayoshi (2015) in his study on influence of gender on students attitude towards Sciences; results showed that attitudes toward biology are more positive than attitudes toward another science subjects. Girls expressed more positive attitudes toward biology in comparison to boys, while overall attitude toward biology was neutral. The similar results were found out by Zeidan and Jayoshi (2015), where girls had got significantly positive attitudes toward biology in comparison with boys. Authors also found out, students from rural environment had got more positive attitudes in comparison with students from urban environment. It is connected with the proximity of the nature related to rural students. A different study focused on attitudes toward biology of high school students realized in Turkey also showed that the overall attitude was neutral (Ekici & Hevedanli 2010). Gender was not found statistically significant (but girls reached higher score

than boys). Statistically significant differences were revealed among students of first grade and second grade (more positive attitudes showed second grade students) and between first and third grade students (more positive attitudes had first grade students).

Hussaini, Foong and Kamar (2015) in his study, asserted that the difference in perception between males and females was insignificant. More so, Uitto (2014) did not find out significant difference in the attitudes toward biology between boys and girls. Author found out overall positive attitudes toward biology among students. The question of gender influence on Biology attitude has generated a lot of concern in science Education. Research has clearly shown that this is an important factor which affects both the individual's achievement/performance and preference for science careers (Jacobwitz, 2003). Evidence also abounds of differential performance of males and females relative to learning modes. For example, Osioma (2005) reported that females work better in cooperative settings while males do better work in individualistic settings. This may probably be related to their attitudinal dispositions. Therefore, attitude toward science in general and Biology in particular is linearly related to good achievement in Biology

(Oluyemi, 2005). This implies that attitude towards science is very important variable in the teaching and learning of science since it may probably affect Biology achievement. The study therefore sought to explore the influence of gender on student's attitude towards Biology. There has been report on gender imbalance in (sciences) Biology which has been found to account for the negative attitude of girls in (sciences) Biology and Technology. Lagoke, Jegede and Oyebanji (2005) six factors have been found to be responsible for the gender imbalance and negative attitude towards (science) Biology. These are: individual cognitive, home and family, educational, sociocultural and attitudinal factors.

Ebuoh (2011) asserted that the consistent reports on gender inequity in biology led to the research for its influence on attitude. In this connection, gender has been reported to facilitate meaningful learning of biological (science) concepts. Consequently, the study sought to investigate the influence of gender on students' attitude towards Biology. A survey design was adopted and population of 2226 biology students was composed. The stratified and proportional random sampling techniques were used to sample 414 students from 9 secondary schools. Instrument used for data collection

was questionnaire on student's attitude towards Biology (SATB). This was developed by the researcher. The instrument was validated using face validity. The reliability of SATB was determined using Cronbach alpha to be 0.83. The research question was answered using mean and analysis of covariance was used to test the hypothesis. Result showed that gender was found not to exert any significant influence on the attitudes of students towards Biology based on the finding recommendations were made

Lecturer Teaching Style and Students' Perception towards the Study of Biology Education

Teaching style adopted by the lecturer is perceived to have influence on students' opinion about Biology Education as a course of study. The key to success in science is not just providing students with a science immersion experience, but also enabling them to conceptualize science as a creative process and of thinking other than a defined body of knowledge. According to Yusuf (2011), the most natural learning is realized through personal experience. Students involving in their work will make them learn and enjoy it.

Teaching style help students appreciate the relevance and importance of what they learn in the classroom. In selecting teaching method, the teacher's analytical ability comes to play considering the situation at hand. There are some factors that will guide the teacher's choice of method to use in teaching a particular lesson; such factors include (Vanaja 2004):

- The subject matter
- Instructional objectives
- The learner
- The teacher
- The time
- Instructional materials
- The environment

These factors are discussed below:

The Subject Matter

The content of a subject determines what method to be used to achieve effectiveness in the teaching and learning process. Subjects could be science

or arts oriented, and as such, they definitely require different teaching methods that suit such disciplines. Science subjects are better taught with the inquiry or discovery methods while the lecture method can be used in some art subjects depending in the content of the subject.

Instructional Objectives

The instructional objectives a teacher intends to achieve at the end of a lesson, determines the choice of teaching method to be used in teaching the subject. For example from the objectives of a lesson, the teacher will know if the lesson intends to acquire new skills or elicit an emotional or aesthetic reaction from the students. Knowledge of these will go a long way in determining which teaching method to use.

The Learner

The learner is the pivot of teaching. A teacher will have to know the student's prior knowledge. The age, ability and the number of learners needs to be considered in some teaching method suitable for students within a given age group; students with different physical and mental abilities/disabilities, interest, students at the primary, secondary or higher

institutions. Example- a method used with the physically challenged cannot be used with the normal students.

The Teacher

The teacher is the person that has to initiate the particular teaching method or methods he/she intends to use in a given lesson. He/she should be familiar with such methods and be prepared in every way. The teacher should endeavour to vary the methods he/she uses in teaching and should not be known to be using a particular method always.

Time

The time allotted to a subject on the school time-table should be considered when determining the choice of teaching method. Methods like role-playing, simulations can be done within double periods. When there is little time to cover large scheme of work, then, the lecture method can be used, but the learners must be considered in every way.

The Classroom Environment

Classroom environment set a tone for learning and causes learners to behave in certain ways. It is important to consider the classroom environment in selecting an appropriate teaching method for a lesson. The space available in a class, ventilation, illumination and other teaching devices in a classroom, etc. ***Instructional Materials***

These go a long way to determine what teaching methods to use in a given lesson e.g. a teacher that wants to teach a practical class in biology needs an equipped laboratory to demonstrate effectively, but where there is none; will end up with just a lecture method which does not completely suit that topic.

Summary of Literature Reviewed

This chapter reviewed related studies on students' perception towards the study of biology education. It was discovered from the review of literatures that society has always placed importance and prestige to courses like medicine, law, economics, etc. hence, more attractive and appreciated by our society. This societal view has also been extended to students as they would not choose as a course of study Biology education.

Disheartening to discover that even students who find themselves studying educational courses; Biology education especially tend to view and take the course of study; not important to their life and future (a waste of time). And these perceptions of students towards Biology education as a course of study tend to affect negatively the students' academic performance given that they do not take too seriously their course of study. Hence, make no plan for a strategic and effective study habit for their course of study. Giving it some thoughts, the researcher feels that there may be factors outside societal views influencing students' perception towards the study of biology education and if understood could help school administrators and lecturers in reshaping positively students' perception towards the study of Biology education. It is upon this premises, the research is embarked on.

CHAPTER THREE

RESEARCH METHODOLOGY

This chapter discusses the methodology that was used to carry out the study. This discussion is done under the sub-headings:

- Research design
- Population of Study
- Sample and Sampling Technique
- Instrumentation
- Validity of Instrument
- Reliability of the Instrument
- Method of Data Collection and
- Method of Data Analysis.

Research Design

The descriptive survey research design method was be used to carrying out this study. This design was chosen because the study sought to gather information on the perception of student towards the study of Biology Education in University of Benin.

Population of the Study

The population for this study consist of all University of Benin Biology Education Students from 100 level to 400 level.

Sample and Sampling Technique

The sample for the study means the portion of the population selected for the study. The sample technique adopted in this study was simple random sampling technique. The research randomly selected twenty-five students per level bringing one hundred (100) students.

Instrumentation

The research instrument that was used for the study is the structured questionnaire designed by the researcher. The items in the questionnaire were grouped into two main sections; section A and section B. Section A was made up of questions designed for the purpose of obtaining demographic information of the respondents data while section B include statements that were intended to elicit information on the choices and responses of the respondents in regards to the variable under study.

Validation of the Instrument

The instrument was validated by the project supervisor and two other lecturers in the Faculty of Education, University of Benin who will evaluate the items in the questionnaire to establish that they were valid.

Reliability of the Instrument

The reliability of the instrument was established using cronbach's alpha techniques and a reliability coefficient of 0.736 was found. This indicated that the instrument was reliable.

Methods of Data Collection

The instrument was collected from the respondents personally by the researcher. The researcher was around to explain all forms of ambiguity that will serve as a problem to the respondents.

Method of Data Analysis

The data collected was properly organized and tabulated. The responses analyzed by the use of simple percentage, frequency count and mean score.

CHAPTER FOUR

DATA PRESENTATION AND DISCUSSION OF FINDINGS

The chapter presents an analysis of the data collected from a sample of 100 students from university of Benin Biology Education students.

Table 1: Demographic profile of respondents (N = 100)

VARIABLE	FREQUENCY	PERCENTAGE (%)
Gender		
Male	32	32
Female	68	68
	100	100%

Table 1 show that the sample was dominated by female respondents, 68 representing 68% while the male respondents were 32 representing 32%.

Research Question 1

What is the perception of students towards the study of Biology Education in the University of Benin

Table 2: Responses on the perception of students towards the study of Biology Education in the University of Benin.

S/N	Item	SA	A	SD	D	Mean (\bar{x})
1	I'm studying Biology Education because I love teaching Biology	50 (50%)	26 (50%)	12 (12%)	12 (12%)	3.1
2	I think Biology Education is useful for my future career growth	26 (26%)	45 (45%)	14 (14%)	15 (15%)	3.0
3	I consider myself capable at studying Biology Education	35 (35%)	60 (60%)	4 (4%)	1 (1%)	3.3
4	I dislike the fact that am studying Biology Education	6 (6%)	29 (29%)	40 (40%)	25 (25%)	2.2
5	I think Biology Education is applicable to other course area	21 (21%)	2 (2%)	44 (44%)	33 (33%)	2.1

From the analysis of data in table 1 percentages and mean (\bar{x}), it is evident through research that 50%, 26%, 12% and 12% of the respondents strongly agree, agree, strongly disagree and disagree respectively to studying of biology education because they love teaching biology, 26%, 45%, 14%, and 15% of the respondents also strongly agree, agree, strongly disagree and disagree respectively to biology education being useful to their future career growth, 6%, 29%, 40% and 25% of the respondents also strongly agree,

agree, strongly disagree and disagree respectively to the fact that they dislike biology education while 21%, 2%, 44%, and 33% of the respondents also strongly agree, agree, strongly disagree and disagree respectively that Biology Education is applicable to other course area.

The analysis of the perception of students studying Biology Education in the University of Benin in research question one reveals students study Biology Education because they love teaching Biology, Biology Education is useful for their future career growth, they consider themselves capable at studying Biology Education, do not dislike the fact that they are studying Biology and think Biology Education is not applicable to other course area.

Research Question 2

Do students perceive that sex play a role on how students perceive the study of Biology Education?

Table 3: Responses on sex playing a role on how students perceive the study of biology education

S/N	Item	SA	A	SD	D	Mean (\bar{x})
6	Females students are less engaged in extracurricular activities than males, they therefore have more times to study than males	10 (10%)	17 (17%)	35 (25%)	38 (38%)	2.1
7	I think females have more advantage than males	6 (6%)	15 (15%)	56 (56%)	23 (23%)	2.0
8	Males and females are given equal importance in this course	68 (68%)	25 (25%)	4 (4%)	3 (3%)	4.1
9	I think Biology Education as a profession is more suitable for females than males	3 (3%)	10 (10%)	72 (72%)	15 (15%)	2.0
10	Female student are more serious than males	2 (2%)	4 (4%)	66 (66%)	28 (28%)	2.0

From the analysis of data in table 2 percentage and mean (x), it is evident through research that 10%, 17%, 35% and 38% of the respondents strongly agree, agree, strongly disagree and disagree respectively to females students being less engaged in extracurricular activities than males and thereby having more time to study, 6%, 15%, 56%, and 23% of the respondents also strongly agree, agree, strongly disagree and disagree respectively to females having more advantage than males, 68%, 25%, 4% and 3% of the respondents as well also strongly agree, agree, strongly disagree and disagree respectively to males and females given equal importance in the biology course, 3%, 10%, 72% and 15% of the respondents strongly agree, agree, strongly disagree and disagree respectively to Biology Education as a profession to be more suitable for females than males while 2%, 4%, 66% and 28% of the respondents strongly agree, agree, strongly disagree and disagree respectively to female students being more serious than male students. The analysis of research question two reveals that Females students are not less engaged in extracurricular activities than males, thereby not having more time to study than males; as well as more advantage, hence, they are both given equal importance in the

course. It also found out that Biology Education as a profession is not more suitable for females than males and Female student are not more serious than males. Therefore, sex difference does not play a role in the perception of student in the study of Biology Education.

Research Question 3

Does socio-economic status affects students' perception towards the study of Biology Education in University of Benin?

Table 4: Responses on the effects of socio-economic status on students' perception towards the study of Biology Education

S/N	Item	SA	A	SD	D	Mean (\bar{x})
11	Studying Biology Education as a life career place me below the societal class	34 (34%)	39 (39%)	16 (16%)	11 (11%)	3.0
12	I feel motivated when studying Biology Education because of my families societal class	15 (15%)	12 (12%)	50 (50%)	23 (23%)	2.2
13	My socio-economic status have make me lost interest in studying Biology Education	42 (42%)	35 (35%)	10 (10%)	13 (13%)	3.1
14	My socio-economic status dose not in any way affect my academic performance	3 (3%)	2 (2%)	57 (57%)	38 (38%)	1.7
15	I think studying Biology Education will affect my socio-economic status negatively	12 (12%)	17 (17%)	31 (31%)	40 (40%)	2.0

From the analysis of data in table 3 percentages and mean (\bar{x}), it is evident through research that 34%, 39%, 16% and 11% of the respondents strongly agree, agree, strongly disagree and disagree respectively that studying Biology education as a life career place them below the societal class, 15%,

12%, 50% and 23% of the respondents strongly agree, agree, strongly disagree and disagree respectively that they feel motivated when studying biology education because of their family societal class, 42%, 35%, 10% and 13% of the respondents strongly agree, agree, strongly disagree and disagree respectively that their socio-economic status make them lost interest in studying biology education, 3%, 2%, 57% and 38% of the respondents strongly agree, agree, strongly disagree and disagree respectively that their socio-economic status does not in any way affect their academic performance while 12%, 17%, 31% and 40% of the respondents strongly agree, agree, strongly disagree and disagree respectively that studying biology education will affect their socio-economic status negatively.

The results of research question three shows that Studying Biology Education as a life career place students below the societal class hence students do not feel motivated when studying Biology Education. Their socio-economic status has made them lost interest in studying Biology Education and thus affects their academic performance. It also reveals that most students' think studying Biology Education will affect their socio-

economic status negatively. Thus, socio-economic status affects students' perception towards the study of Biology Education in university of Benin.

Research Question 4

Do lecturers teaching style affects students' perception towards the study of Biology Education?

Table 5: Responses on the effects of lecturers teaching style on students' perception towards the study of Biology Education

S/N	Item	SA	A	SD	D	Mean (\bar{x})
16	My lecturers help me resolve difficulties or complexities in their materials	10 (10%)	17 (17%)	67 (67%)	40 (40%)	2.7
17	The lecturers uses teaching aids effectively	9 (9%)	12 (12%)	53 (53%)	26 (26%)	2.0
18	I don't understand the course due to the way it been taught	68 (68%)	25 (25%)	4 (4%)	3 (3%)	3.6
19	My lecturers teaching goals and methods addresses student learning style	3 (3%)	2 (2%)	57 (57%)	38 (38%)	1.7
20	Attending lectures increases my anxiety	31 (31%)	40 (40%)	12 (12%)	17 (17%)	2.9

From the analysis of data in table 4 percentages and mean (\bar{x}), it is evident through research that 10%, 17%, 67% and 40% of the respondents strongly agree, agree, strongly disagree and disagree respectively that lecturers help them resolve difficulties or complexities in their materials, 9%, 12%, 53% and 26% of the respondents strongly agree, agree, strongly disagree and disagree respectively that the lecturers uses teaching aids effectively, 68%, 25%, 4% and 3% also strongly agree, agree, strongly disagree and disagree respectively that they don't understand the course due to the way it's been taught, 3%, 2%, 57% and 38% of the respondents strongly agree, agree, strongly disagree and disagree respectively that their lecturers teaching goals and methods addresses students learning style while 31%, 40%, 12% and 17% strongly agree, agree, strongly disagree and disagree respectively that attending lectures increases their anxiety.

The analysis of research question four reveals that lecturers do not help students resolve difficulties or complexity through their materials and do not effectively use teaching aids hence students do not understand the course the way it's being taught. It also shows that lecturers teaching goals and methods do not addresses student learning style, and attending lectures

increase student's anxiety. Therefore, lecturers teaching style affects students' perception towards the study of Biology Education

Discussion of Findings

The result of this study has been quite instructive, informative and revealing. Based on the analysis of data or information collected from the opinion of the respondents on: the perception of students towards the study of Biology Education in the University of Benin

The analysis of the perception of students studying Biology Education in the University of Benin in research question one reveals students study Biology Education because they love teaching Biology, Biology Education is useful for their future career growth, they consider themselves capable at studying Biology Education, do not dislike the fact that they are studying Biology and think Biology Education is not applicable to other course area.

The analysis of research question two reveals that Females students are not less engaged in extracurricular activities than males, thereby not having more time to study than males; as well as more advantage, hence, they are both given equal importance in the course. It also found out that

Biology Education as a profession is not more suitable for females than males and Female student are not more serious than males. Therefore, sex difference does not play a role in the perception of student in the study of Biology Education.

The results of research question three shows that Studying Biology Education as a life career place students below the societal class hence students do not feel motivated when studying Biology Education. Their socio-economic status has made them lost interest in studying Biology Education and thus affects their academic performance. It also reveals that most students' think studying Biology Education will affect their socio-economic status negatively. Thus, socio-economic status affects students' perception towards the study of Biology Education in university of Benin.

The analysis of research question four reveals that lecturers do not help students resolve difficulties or complexity through their materials and do not effectively use teaching aids hence students do not understand the course the way it's being taught. It also shows that lecturers teaching goals and methods do not addresses student learning style, and attending lectures

increase student's anxiety. Therefore, lecturers teaching style affects students' perception towards the study of Biology Education

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

The purpose of this research was to find out the perception of students towards the study of Biology Education in the University of Benin. The researcher made effort in analysing the perception of students towards the study of Biology Education in the University of Benin, responses on sex playing a role on how students perceive the study of Biology Education, the effects of socio-economic status on students' perception towards the study of Biology and the effects of lecturers teaching style on students' perception towards the study of Biology. All of which have been discussed in details under the review of literature.

The collection of data was carried out through the administration of questionnaire to hundred (100) students from the University of Benin. The data was interpreted and discussed using simple percentages, mean and frequency table. The sampling technique used for the research is the simple random.

Conclusion

Following the analysis of the data collected and finding made, the following conclusions were drawn:

1. Students study Biology Education because they love teaching Biology, Biology Education is useful for their future career growth, they consider themselves capable at studying Biology Education, do not dislike the fact that they are studying Biology and think that Biology Education is not applicable to other course area.
2. Sex difference does not play a role in the perception of student in the study of Biology Education.
3. Socio-economic status affects students' perception towards the study of Biology Education in university of Benin because they think studying Biology Education will affect their socio-economic status negatively.
4. Lecturers teaching style affects students' perception towards the study of Biology Education as they do not help students resolve difficulties or complexity through their materials and do not effectively use teaching aids, students do not therefore understand the course as

lecturers teaching goals and methods do not address student learning style.

Recommendations

Based on the conclusion drawn from the findings, the following recommendations are made:

1. Students need to be rightly oriented that students who successfully complete the programme have ample teaching opportunities with the various ministries and private schools in the country, research institutions, educational institutions, curriculum development centres and examination bodies. The graduates are also employable in science-oriented institutions like International Institute of Tropical Agriculture (IITA), National Horticulture Research Institution (NIHORT) etc. Graduates of the programme can also be self-employed in teaching Biology to private individuals. They can establish their own schools. This can be done by organizing seminars for students.
2. In as much as sex does not play a role in students' perception towards study, there is a need for them to be reassured that there is no bias during grading.

3. The government should invest more on Education sector by increasing the salaries of the teachers in order to encourage more students to take teaching as a first choice and serve as a positive intrinsic motivation for the student to study.
4. More teaching and learning facilities should be provided by the government to enhance learning such as overhead projectors, lab equipment etc. Biology majorly deals with practical and so students need to experiment more in the laboratories, by doing this Biological concepts become more real and more interesting to them.

Suggestions for Further studies

This is a small-scale study a countrywide study with a larger population is suggested that cut across Biology Education students in other Universities. This study can also be replicated in other course areas.

REFERENCES

- Akey Theresa, m. (2006). Student's attitude, behaviour and academic achievement. PhD dissertation. www.mdrc.org
- American Association for the Advancement of Science. (1989). Science for all Americans: Project 2061. Washington , DC: AAAS
- American Association for the Advancement of Science. (2001). Atlas of Science Literacy: Project 2061. Washington, DC: AAAS & National Science Teachers Association.
- American Association for the Advancement of Science. (1996). Benchmarks for science literacy. New York: Oxford Press.
- Bandura, A. (1977). Social learning theory. New York: General Learning Press.
- Barab, S. A., & Duffy, T. M. (2000). From practice fields to communities to practice. D.
- Bartling, J. D. (2009) Faculty and administrator perceptions of teaching, the scholarship of teaching and learning, and culture at a teaching university. (Doctoral dissertation). Retrieved from ProQuest. UMI 3344920.
- Becker, L., & Schneider, K. (2004, August/September). Motivating students: Eight simple rules for teachers. *The Teacher Professor* , 1-2.
- Beeth, M. E., Adadan, E., Firat, G., & Kutay, H. (2003). The changing face of biology 101 with regards to the nation's science standards. Paper presented at the meeting.

- Christidou, V. (2011). Interest, attitudes and images related to science: Combining students' voices with the voices of school Science, teachers, and popular science.
- Ekici, G., & Hevedanli, M. (2010). Analyzing high school students' attitudes towards biology course in different variables. *Journal of Turkish Science Education*, 7(4), 97-109.
- Gardner, G. E., Bonner, J., Landin, J., Ferzli, M., & Shea, D. (2016). Nonmajors' shifts in attitudes & perceptions of biology & biologists following an active learning course: An exploratory study.
- Jones, M. G., Howe, A., & Rua, M. J. (2000). Gender differences in students' experiences, interests, and attitudes toward science and scientists. *Science Education*, 84(2), 180-192.
[https://doi.org/10.1002/\(SICI\)1098-237X\(200003\)84:2<180::AID-SCE3>3.0.CO;2-X](https://doi.org/10.1002/(SICI)1098-237X(200003)84:2<180::AID-SCE3>3.0.CO;2-X)
- Olewatelure TA, Oloruntegbe KO (2010). Review: Effects of Parental involvement on Students' Attitude and Performance in Science.
- Prokop, P., Prokop, M., & Tunnicliffe, S. D. (2007). Is biology boring? Student attitudes toward biology. *Journal of Biological Education*, 42(1), 36-39.
<https://doi.org/10.1080/00219266.2007.9656105>
- Trumper, R. (2006). Factors affecting junior high school students' interest in biology. *Science Education International*, 17(1), 31-48.

APPENDIX

**DEPARTMENT OF CURRICULUM AND INSTRUCTIONAL
TECHNOLOGY (CIT), FACULTY OF EDUCATION,
UNIVERSITY OF BENIN, BENIN CITY, EDO STATE**

QUESTIONNAIRE ON THE PERCEPTION OF STUDENTS TOWARDS THE STUDY OF BIOLOGY EDUCATION

Dear Respondents This questionnaire is designed for you to express your opinion on the perception of students towards the study of Biology Education, Benin City, Edo State.

The study is purely for academic purpose and any information supplied by you will be treated with utmost confidentiality.

Thank you.

	studying Biology Education courses.				
4	I dislike the fact that I'm studying Biology Education.				
5	I think Biology Education is applicable to other careers.				
B	Do students perceive that sex play a role on how students perceive the study of Biology Education?				
6	Female student are less engaged in extracurricular activities than males, they therefore have more time to study than males				
7	I think females have more advantage than males.				
8	Males and Females are given equal importance in this course.				
9	I think Biology Education as a profession is more suitable for females than males.				
10	Female student are more serious than males.				
	Does socio-economic status affects students' perception towards the study of Biology Education in University of Benin?				
11	Studying Biology Education as a life career place me below the societal class.				

12	I feel motivated when studying Biology Education because of my families socio-economic status.				
13.	My socio-economic status have made me lost interest in studying Biology Education.				
14	My socio-economic status does not in any way affect my academic performance.				
15	I think studying Biology Education will affect my socio-economic status negatively				
D	Do lecturer's teaching style affects students' perception towards the study of biology Education?				
16	My lecturers help me resolve difficulties or complexities in their materials.				
17	The lecturers uses teaching aids effectively				
18	I don't understand the course due to the way it is being taught				
19	My lecturers teaching goals and methods addresses student learning style				
20	Attending lectures increases my anxiety.				

