**CHAPTER ONE**

**INTRODUCTION**

**Background of the study**

Biology is the natural science involves the study of the life and living organism, including their physical structure, chemical composition function, development and evolution. Modern biology is a vast field, composed of many branches. Despite the broad scope and the complexity of the science, there are certain unifying concepts that consolidate it into a single, coherent field. Biology recognizes the cell as the basic unit of life, genes as the basic unit of heredity, and evolution as the engine that propels the creation of new species. Living organisms are open systems that survive by transforming energy and decreasing their local entropy to maintain a stable and vital condition defined as homeostasis (Davis, Rieper &Tuszynski, 2013).

Report has it that there have been consistent decline in the performance of students in public examination conducted by the West African Examination Council (WAEC) and the National Examination Council (NECO) in sciences across the country over the years (Agogo,2003. Samba & Eriba, 2012). Ahmed and Abimbola (2011) argued that because of its numerous importance, biology is the most popular choice, among science subjects nationwide offered by candidates sitting for the senior secondary school certificate examination according to WAEC chief examiner’s report stated that some observed weakness of the candidates in biology (2017) which includes lack of understanding of some questions, to give answers, wrong spellings of biological names and terms. Despite the popularity of biology, resort of research always reviled poor performance of students in the subject.

Ciner(2011) argued that many concepts of topics in biology, including water, transport implant, protein synthesis, respiration and photosynthesis, hormonal regulation, oxygen transport, genetics mendelian genetics, genetic engineering, and the central nervous system can be perceived as difficult to learn by secondary school students. While Tekeya (2011) found that the hormones, genes and chromosomes, mitosis, the nervous system and the mendelian genetics were considered difficult concepts by secondary school students. Ozone (2003) stressed that experiencing difficulties in so many topics in biology negatively affect students’ motivation and achievement. Students’ difficulties with many topics in biology have stimulated researchers to investigate why students experience such difficulties. Experiencing difficulties in biology could be attributed to many factors such as poor learning environment, lack of interests in learning science, over load of curriculum content and delimitation of science from society, among others and also designing learning environment while ignoring students’ interest and causing several learning problems as well as decreasing their interest in biology.

Cimer (2011) indicates that there is a close relationship between students’ perception of their classroom learning environment and their success. Osborn and Collins (2001) also reported that students diminishing interest in learning science was due to the curriculum content being overloaded and not generally related to working life, the lack of discussion of topics of interests, the absence of creative expression opportunities, the alienation of science form society and the prevalence of isolated science subjects. Another reason reported by many researchers,(Auwal, 2001. Mohd 2003) is that due to the nature of biological sciences, biology learning is based on memorization. Biology science includes many abstract concepts, events topics and facts that students have to learn. This makes it hard for students to learn them (Cimer,2004; Saka,2006; Durmaz, 2007). Also, in addition to the determining the 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 in school, students’ view must be taken into consideration by researchers, teachers, educators and schools (Macbeth and Moritimore,2001; Cimer, 2004; Ekici,2010). They argued that what say about teaching and learning are not worth listening to but provides an important foundation for thinking about ways of improving teaching and learning.

Phonix (2000) state that students’ views of teaching may reflect the ways that they learn best, indeed schools that acknowledge the significance of students’ views have found these cab make a substantial contribution to classroom management to learning and teaching and to the school as a social and learning place (Macbeth *et al* 2000). Therefore, the study is aimed at carrying out a survey of topics students perceive as difficult in biology in senior secondary school in Egor Local Government Area of Edo State.

**Statement of the Problem**

The crux of the matter is that most of the few students is that most of the few students who choose to offer sciences in our secondary school are noted for having problems learning the sciences especially biology. However despite the popularity of Biology, based on various studies, it was revealed that many students often had low academic achievement in this subject (Hasibuan & Djulia, 2017)

Though several factors have been identified for students’ poor performance in the sciences and efforts made towards tackling some during seminars, conferences and workshops, the students’ performance is still not encouraging. The identification of areas of difficulty in biology and hence, since syllabus is therefore important. This study is poised to carrying out survey of topics students’ perceive as difficult in biology in senior secondary school in Egor Local Government Area of Edo State.

**Research question**

The following research questions were raised to guide the study.

1. What topics do biology students find difficult?
2. What are the reasons these students find the topic difficult?
3. Does gender influence students’ perception of difficult topics in senior secondary school II biology?
4. Does the biology teacher’s methods influence the topics perceived as difficult by students?

**Purpose of study**

The purpose of this study was to find out topics students perceived as difficult in biology in senior secondary school in Egor Local Government Area. The study seeks to:

1. Find the reasons why student find some biology topics difficult?
2. Examine if gender influences students perception of difficult topics in senior secondary biology?
3. Students examine if the biology teacher’s methods of teaching affect perception of biology topics as difficult?

**Significant of the study**

The findings of this study will be beneficial to teachers, school administrators, government and researchers.

Teachers will find the study very useful. The findings of the study will furnish the teachers with information on how to overcome the challenges facing the teaching and learning of biology and also the teaching style to adopt for each topic depending on how the students perceived them as difficult.

The findings of this study will be immerse benefits to school administrators as it would provide them with the needed information on the relevance of instructional materials to equip biology teachers in order to signify the topics.

The findings of the study will be of benefit to the state government, as it would provide information on the solutions to overcoming the difficulties students face in some topics through adequate provision of funds.

The findings of this study will also be of help to researchers as it will add to the body of knowledge and as a point of reference for further research.

The findings of this study will benefit students because if teachers are aware of these difficult topics, they will take their time to teach them. They will help to improve students’ performance in biology.

**Scope and Delimitation**

This study focused on the study of topics students perceived as difficult in biology in senior secondary school in Egor Local Government Area of Edo state. The study was delimited to Senior Secondary School students II in Egor Local Government Area of Edo state.

**Definition of Terms**

**Biology:** biology as a branch of science plays a vital role in providing knowledge of relevant concepts, scientific skills, environmental and natural phenomena.

**Curriculum:** curriculum is a set of courses, course work and topics, offered in schools.