

**PERCEPTIONS OF STUDENTS WITH LEARNING DISABILITIES TOWARDS  
THE USE OF ASSISTIVE TECHNOLOGY IN THEIR LEARNING PROCESS IN  
OREDO LOCAL GOVERNMENT AREA OF EDO STATE**

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BENIN CITY.**

**APRIL 2024**

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**A RESEARCH PROJECT PRESENTED TO THE DEPARTMENT OF  
EDUCATIONAL EVALUATION AND COUNSELLING PSYCHOLOGY,  
FACULTY OF EDUCATION, UNIVERSITY OF BENIN, BENIN CITY IN  
PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE AWARD OF  
THE DEGREE OF BACHELOR OF EDUCATION B.Ed IN SPECIAL  
EDUCATION.**

**APRIL 2024**

## CERTIFICATION

We, the undersigned, certify that this research work was carried out by Uyioghosa Favour OMOREGIE in the Department of Educational Evaluation and Counseling Psychology, Faculty of Education, University of Benin, Benin City, Nigeria.

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## **DEDICATION**

This research work is dedicated to God almighty for his strength, guidance and wisdom in carrying out this project work.

## ACKNOWLEDGMENT

The researcher would like to express her profound gratitude to her project supervisor Dr. Mrs. Eno Aliu for her immense contribution towards the success of her project work.

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## TABLE OF CONTENTS

	PAGES
<b>TITLE</b>	<b>ii</b>
<b>CERTIFICATION</b>	<b>iii</b>
<b>DEDICATION</b>	<b>iv</b>
<b>ACKNOWLEDGMENTS</b>	<b>v</b>
<b>ABSTRACT</b>	<b>viii</b>
<b>CHAPTER ONE: INTRODUCTION</b>	
Background to the Study	1
Statement of the Problem	4
Research Questions	5
Purpose of the Study	6
Significance of the Study	6
Scope and Delimitation of the Study	7
Definition of Terms	7
<b>CHAPTER TWO: REVIEW OF RELATED LITERATURE</b>	
Theoretical Framework	9
Concept of Assistive Technology	11
Concept of Learning Disabilities	14
Perceptions of Students with Learning Disabilities towards Assistive Technology	24
Barriers towards the use of Assistive Technology in Learning by Students of Disabilities	27
Ways to Assist and Improve Disabilities Students with Learning of Assistive Technology	28
Review of Empirical Studies	31
Summary of Review Related Literature	33

### **CHAPTER THREE: METHODOLOGY**

Design of the Study	35
Population of the Study	35
Sample and Sampling Techniques	36
Research Instrument	36
Validity of the Instrument	36
Method of Data Collection	37
Method of Data Analysis	37

### **CHAPTER FOUR: PRESENTATION OF DATA AND DISCUSSION OF FINDINGS**

Presentation of Results	39
Discussion of Findings	46

### **CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS**

Summary	49
Conclusion	50
Recommendations	51

### **REFERENCES**

### **APPENDICES**

## ABSTRACT

*This research work is on the perceptions of students with learning disabilities towards assistive technology in learning. To carry out the study four research questions raised. The aim of the study was to find out the perception of students of disabilities and ways to improve their learning with assistive technology.*

*Descriptive survey research design was employed for this study. The population of study was 100 respondents which were selected from various schools in Oredo Local Government Area of Edo State. Random sampling techniques was used to select respondent from 3 schools. A structured questionnaire was raised to gathered information from the respondents. The instrument was validated by the project supervisor and two other experts from the Department. Data was analyzed using likert scale of 2.5 rating, SA, A, D and SD. The reliability of the instrument is 0.72 which was obtained using Cronbach's Alpha reliability test.*

*Based on the findings of the study the following conclusions were drawn. That Assistive technology enhance students learning, increased academic knowledge and help to overcome academic some academic challenges. The following recommendations were hereby suggested. Government should provide enough assistive technology equipment's to students of disabilities to enhance their learning. Schools authority should create space and building where assistive technology will be stored. And NGOs and Government should help in sponsoring the purchase of Assistive technology equipment's.*

## CHAPTER ONE

### INTRODUCTION

#### **Background to the Study**

Assistive technology are devices such as walkers and wheelchairs, as well as hardware, software, and peripherals that assist people with disabilities in accessing computers or other information technologies. Assistive technology (AT) is any device that helps a learner with a disability completes an everyday task (Okennea, 2020). An assistive technology (AT) tool is any item that is used to maintain or improve the functioning of a child with a disability. Education Act (IDEA) 2017 as: “Any item, piece of equipment or product system, whether acquired commercially off the shelf, modified, or customized, that is used to increase, maintain, or improve the functional capabilities of children with disabilities”. As defined in IDEA, an assistive technology service is any service that directly assists a child with a disability in the selection, acquisition, and use of an assistive technology device (IDEA, 2004).

Perception can be defined as the way in which something is regarded, understood, or interpreted, perception are in different senses, this includes visual perception, scent perception, touch perception, sound perception, and taste perception. Perception can be positive or negative, most learners believe that assistive technology has a positive influence on students' academic performance, which helps students achieve challenging tasks and overcome academic difficulties, provides students with the opportunity to receive the learning assistance they require, and enables them to be more

independent(Ader and Erktin, 2019). Assistive technology is importance and has help learners of disabilities to succeed. Although, some people believe assistive technology makes them dependent and students with disabilities will not be able to do the tasks on their own (Edyburn, 2016). Individuals with disabilities sometimes have difficulty with tasks, leading to others making decisions for them (Carlson, Ehrlich, Berland, & Bailey, 2018). Most students with disabilities in the classroom, assistive technology has the potential to enhance and increase their learning and academic performance (Edyburn, 2016). Currently, many students with disabilities are included in the classroom. Students may have difficulties in different areas like reading, listening, organizing information, or writing. An inclusive classroom for Assistive Technology may help learners to overcome some of their challenges, increase, maintain, or improve the functional capabilities.

The perception students towards the use Assistive technology is that it helps to expand social circle, learn new skills, and find entertainment, also for reading and writing documents, communicating with others, and searching for information online. (Bausch & Hasselbring, 2016). Using assistive technology in the home, students with learning disabilities can learn alongside their typically developing peers in the classroom. Bateni and Maki (2005) found that assistive technology also has many clinical benefits, such as improving people's mobility and their ability to complete daily tasks through the use of canes and walkers. Mobility aids can increase students self-confidence and feelings of safety, which helps them to achieve the highest level of independence in their lives. Bryant (2018) demonstrated that teachers used cooperative learning in the

classroom to promote academic achievement and social acceptance of students with and without learning disabilities. Cooperative learning is of interest to classroom teachers because it can provide an opportunity for more instruction and feedback by classmates than that which is provided by teachers to individual students who require additional assistance. Bryant stated that students with learning disabilities may need assistive technology allowing them to engage and interact with their typically developing peers during cooperative learning activities in the classroom. Smith (2017) highlights some Assistive technology (AT) equipment like eye glasses, contact lenses, or hearing aids. Wheelchairs and grab bars, a must for many individuals with physical disabilities, these items are critical to meeting career, academic, recreational, and self-care needs. pen and pencil grips Large-print materials, Adaptive pencils – e.g. weighted, fat, skinny, triangular, complex AT is likely to be available in most classrooms, Audio books, Tape recorders/other recording devices, some of which can play back at varying speeds.

There are high technology assistive devices in existence today that have had a major positive impact on younger students, teenagers, and those attending higher education institutions. Speech-to-text software, provides assistance to those who have visual impairments, dexterity, or mobility problems. Screen readers, these programs use an audio interface to inform students what is on a computer screen. These are also wonderful for students with visual impairments. Alternative input devices, they include touch screens, and modified keyboards for word processors. Students can even operate joysticks and levers with other body parts (such as the chin) to complete word processing

assignments (Burry, 2021). Optical character recognition (OCR) – allows students to scan printed material onto a computer or handheld device, which is then read aloud through a screen-reading system. Talking calculator, helps kids with visual impairments and cognitive processing difficulties with math skills. Microphones, teachers may wear specialized microphones for students with hearing impairments (that aren't distracting to other students). Assistive Technology has really affect students learning positively and have brightens their academic performance. Will delve into the specific types of AT students find most helpful, the challenges they face in accessing and utilizing these tools, and the impact of AT on their self-efficacy, motivation, and overall learning experience. The study seeks know valuable insights into the effective implementation of AT in inclusive classrooms. Gives adequate knowledge which can inform educators, technology specialists, and policymakers in creating learner-centered environments that leverage the power of Assistive Technology AT to bridge the gap between students with LDs and their full academic potential.

### **Statement of the Problem**

The use of Assistive Technology towards the learning of students of disability could improve their academic performance, which may help them to compete with other regular students. Special schools might be face with the difficulties of teaching students of disabilities because of lack of learning and teaching equipment of Assistive technology, which ought to improve to academic performance, compete with other normal students in career, job opportunities and be useful to the society. It could be observed that perception

of students of learning disabilities ought to be positive. It seems that many schools do not have the requirement facilities to teach special students of disabilities like special pen, pencil grips, white board, large-print materials, adaptive pencils, talking calculator, eye glasses, contact lenses, or hearing aids. Wheelchairs and grab bars, touch screen systems, audio books, tape recorders, computers which can play back at varying speeds. If students lack learning facilities and equipment's they might develop negative perception. If students cannot compete, interact and engage with their counterparts in normal schools they may not perform creditably in academic career, thus, they might develop wrong perception. In line of these above, this research work seek to investigate the perceptions of students with learning disabilities towards Assistive Technology in learning.

### **Research Questions**

1. What is the Perceptions of Students with Learning Disabilities Towards Assistive Technology in Learning in Oredo Local Government Area of Edo State?
2. Do students with learning Disabilities often make use of Assistive Technology for learning in Oredo Local Government Area of Edo State?
3. What are perceived barriers towards the use of Assistive Technology in learning by students of Disabilities in Oredo Local Government Area of Edo State?
4. What are the ways to improve the perception of disabilities students towards the use of Assistive Technology in Oredo Local Government Area of Edo State?

### **Purpose of the Study**

The Purpose of the study is to investigate the perceptions of students with learning disabilities towards Assistive Technology in learning, with specific objective to determine;

1. The Perceptions of Students with Learning Disabilities towards Assistive Technology in Learning in Oredo Local Government Area of Edo State.
2. If students with learning Disabilities often make use of Assistive Technology for learning in Oredo Local Government Area of Edo State.
3. To know the perceived barriers towards the use of Assistive Technology in learning by students of Disabilities in Oredo Local Government Area of Edo State.
5. To find ways to improve the perception of disabilities students towards the use of Assistive Technology in Oredo Local Government Area of Edo State.

### **Significance of the Study**

This study is significant for teachers, students, school authorities, government at all level and to researcher. To teachers, this research work will help teachers of disabilities to know how to teach students on how to develop good perception towards the use of Assistive Technology, and the research will help teachers to know different methods of teaching with Assistive Technology facilities which will be effective for better academic performance of students.

For students, this research work will broaden their knowledge on the use of Assistive Technology and it's important for learning and teaching in school, which will students to embrace it.

To school authorities, the study will motivate them apply and purchase Assistive Technology in their school and encourage students and parents to embrace it.

To government at all level, the research work will make them to budget more fund for schools of disabilities, to equip them with latest facilities will improve students academic performance. To researchers, this study will be a consult materials in research and implementations of policies towards learning of Assistive Technology for future use.

### **Scope and Delimitation of the Study**

The study focuses on the perceptions of students with learning disabilities towards Assistive Technology and is restricted to in Oredo Local Government Area of Edo State.

### **Definition of Terms**

**Assistive Technology:** Assistive technology is any service that directly assists a child with a disability in the selection, acquisition, and use of an assistive technology device.

**Disabilities:** Disability is persons with physically disadvantage in nature, for example “cripple”, “physically deformed”, “dumbness”. The students’ who cannot see, walk, talk, lack body parts, some body parts not active but other parts active, physically deformed, accidental.

**Learning:** Learning is the acquisition of knowledge or skills through study, experience, or being taught.

**Perceptions:** Perception is how one person’s see something and regarded it, or understood, or interpreted it. Perception is also how one feels, sees sound and taste something.

**Students:** *A student* is a learner, or someone who attends an educational institution. one who studies, a scholar at a high school, college, or university: one devoted to the study of any subject, a man devoted to books

## **CHAPTER TWO**

### **REVIEW OF RELATED LITERATURE**

This chapter presents the review of related literature and it is discussed under the following sub-headings;

- Theoretical Framework
- Concept of Assistive Technology
- Concept of Learning Disabilities
- Perceptions of Students with Learning Disabilities Towards Assistive Technology
- Barriers towards the use of Assistive Technology in learning by students of Disabilities
- Ways to assist and improve disabilities students with learning of Assistive Technology
- Review of Empirical Studies
- Summary of Review Related Literature

### **Theoretical Framework**

This research work is based on Wellness Theory of Drummond and McIntyre (2004) which state “There is no room in a classroom dedicated to learning without limits for learning opportunities that only benefit some people”. This statement encapsulates the very heart of wellness theory, especially as it applies to learning and the promotion of equity and inclusion. Learning is for all, and equity in learning means not that everyone is treated the same. This wellness theory can be applied to education as a whole in various ways. As a policy for staff to create happy, healthy schools which act as agents of

learning as well as providing safe, nurturing environments which equip students with both academic and life skills. “There is no room in a classroom dedicated to learning without limits for learning opportunities that only benefit some people”. This statement encapsulates the very heart of wellness theory, especially as it applies to learning and the promotion of equity and inclusion. Learning is for all, and equity in learning means not that everyone is treated the same, because we are all different, but rather that we are given the same opportunity to access learning but in ways which meet our needs. When a group of students knows they are recognized and have value in and to a class, they develop solidarity and the community of learning is maintained. It is centered around including all students, and providing as many opportunities in a variety of ways so that every learner’s particular learning style may be accommodated. He believed in “co-intentionality” in that both teacher and student share the same space in a classroom and so should learn from each developing relationship and eroding oppression. An educator or teacher causes a process to start and then acts to keep the process in motion by generating or stimulating the learning environment. This is especially true when considering Hettler’s (2019) overarching definition of wellness to be that of an active process through which people become aware of, and make choices toward, a more successful existence.

AT provide the classroom, as follows:

AT is appropriate to the unique needs/exceptionalities of the student

AT will help, extend their progress

AT capitalize on their strengths so as to build esteem and autonomy to facilitate lifelong learning and inclusion in the mainstream classroom where possible.

This wellness theory is applied to the study that if Assistive Technology. That Assistive technology (AT) will helps a learner with a disability completes an everyday task. Also an assistive technology (AT) tool is any item that is used to maintain or improve the functioning of a child with a disability. That AT will modified, or customized, that is used to increase, maintain, or improve the functional capabilities of children with disabilities”. The theory stress on importance and has help learners of disabilities to succeed. have difficulties in different areas like reading, listening, organizing information, or writing.

### **Concept of Assistive Technology**

Assistive technology are devices such as walkers and wheelchairs, as well as hardware, software, and peripherals that assist people with disabilities in accessing computers or other information technologies. Assistive technology (AT) is any device that helps a learner with a disability completes an everyday task (Okennea, 2020). An assistive technology (AT) tool is any item that is used to maintain or improve the functioning of a child with a disability. Education Act (IDEA) 2017 as: “Any item, piece of equipment or product system, whether acquired commercially off the shelf, modified,

or customized, that is used to increase, maintain, or improve the functional capabilities of children with disabilities”. As defined in IDEA, an assistive technology service is any service that directly assists a child with a disability in the selection, acquisition, and use of an assistive technology device (IDEA, 2004).

Assistive technology is important and has helped learners with disabilities to succeed. Although, some people believe assistive technology makes them dependent and students with disabilities will not be able to do the tasks on their own (Edyburn, 2016). Individuals with disabilities sometimes have difficulty with tasks, leading to others making decisions for them (Carlson, Ehrlich, Berland, & Bailey, 2018). Most students with disabilities in the classroom, assistive technology has the potential to enhance and increase their learning and academic performance (Edyburn, 2016). Currently, many students with disabilities are included in the classroom. Students may have difficulties in different areas like reading, listening, organizing information, or writing.

An inclusive classroom for Assistive Technology may help learners to overcome some of their challenges, increase, maintain, or improve the functional capabilities. Assistive technology devices can be divided into two categories; high tech and low tech. High-tech devices are more complicated and cost more. They also require training or guidance from the user, such as adaptive equipment, voice recognition software, or word prediction software (Johnston & Watson, 2017). In contrast, low-tech is low-priced equipment, as it costs less than high-tech, it is simply designed, and requires limited

training. Examples of low-tech devices include but are not limited to talking watches, pencil grips, highlighting marker tape, eyeglasses, and ear plugs to reduce distraction (Johnston 2017). Assistive technology is intended to help and assist people who have challenges or disabilities. As a special educator, the researcher is concerned with the well-being of students, especially those who have disabilities. Students with disabilities need to have an accessible educational environment allowing them to participate in the classroom. The Least Restrictive Environment (LRE) is one of the significant elements that should be provided for individuals with special needs (Turnbull, 2021) as required by the IDEA. In order to promote the classroom acceptance of students with disabilities, there are many techniques that have to be considered, one of which is assistive technology.

The classroom is one place that children with disabilities, regardless of the nature of the disabilities, spend most of their time; thus, it should prepare them academically by providing them with content knowledge and social interaction with their peers. Assistive technology can help create the accessible environment that children with disabilities, parents, and special educators are looking for. Students with disabilities can be as successful as their peers when the educational system. Assistive technology in the classroom is one of the most important accommodations that educational agencies have to provide; moreover, teachers should be aware of their students' needs (Watson & Johnston, 2017). High-tech computers and software can be helpful tools for students with mild disabilities such as dyscalculia, dyslexia, or dysgraphia. One of teachers' major

responsibilities is to provide children, regardless of their disabilities, with successful learning experiences and assistive technology can help teachers to reach this goal giving their students an opportunity for a brilliant future (Netherton & Deal, 2017). However, accessibility to assistive technology devices is still difficult for financial reasons and prevents some students with disabilities from having access to them in the classroom (Watson & Johnston, 2017). In schools, millions of students with learning disabilities are not able to access the technology and information available, while in the same school the rest of the students can access the information they need with the click of a mouse (Bausch & Hasselbring, 2016). Through the use of assistive technology and digital technologies, students with learning disabilities are able to gain the same benefits as their peers in the classroom (Bausch & Hasselbring, 2006). Additionally, using software and assistive technology in the home, students with learning disabilities can learn alongside their typically developing peers in the classroom

### **Concept of Learning Disability**

Learning disability is that effects that affect the acquisition of knowledge and skills, in particular a neurodevelopmental condition affecting intellectual processes, educational attainment, and the acquisition of skills needed for independent living and social functioning. A learning disability is to do with the way someone's brain works. It makes it harder for someone to learn, understand or do things. is a reduced intellectual ability and difficulty with everyday activities – for example household tasks, socialising

or managing money – which affects someone for their whole life. (Melanie, 2023)

Learning disabilities are problems in processing words or information, causing otherwise bright and capable children to have difficulty learning. The disabilities involve language reading, writing, speaking, and/or listening.

Learning disability is to do with the way someone's brain works. It makes it harder for someone to learn, understand or do things. Is a reduced intellectual ability and difficulty with everyday activities for example household tasks, socialising or managing money which affects someone for their whole life. Learning disabilities are disorders that affect the ability to:

- Understand or use spoken or written language
- Do mathematical calculations
- Coordinate movements
- Direct attention

Harries (2022) opined that learning disabilities occur in very young children, yet they are usually not noticed until the child reaches school age. Learning disabilities can be lifelong conditions. In some people, several overlapping learning disabilities may occur. Other people may have a single, isolated learning problem that has little impact on their lives.

The definition most often used in higher education is that of the U.S. Department of Education, Rehabilitation Services Administration, which reads as follows: A specific

learning disability is a disorder in one or more of the central nervous system processes involved in perceiving, understanding, and/or using concepts through verbal (spoken or written) language or nonverbal means. This disorder manifests itself with a deficit in one or more of the following areas: attention, reasoning, processing, memory, communication, reading, writing, spelling, calculation, coordination, social competence and emotional maturity.

This dysfunction continues despite instruction in standard classroom situations.

Some common attributes of learning disabled individuals are:

- Average to superior intelligence
- A chronic disorder of neurological origin which causes severe processing deficit
- A severe discrepancy between achievement and aptitude in one or more areas
- Measured achievement in an instructional or employment setting; and
- Measured age-appropriate adaptive behavior in an instructional or employment setting

Often people assume that students with learning disabilities are unmotivated and unintelligent. Many question whether these students can succeed in college. In reality, students with learning disabilities are not intellectually limited nor are they unmotivated. They have the potential to succeed in higher education. The student's problems are associated with information processing, whereby the information received or transmitted is distorted (Gomaz, 2023).

Common instructional methods, such as lectures, are often inadequate for the student's learning needs. Alternative methods will increase the student's academic performance, as well as decrease his or her frustration in learning situations.

Some of the specific terms for disorders included under the umbrella term "learning disabilities" are:

- dyslexia (difficulty with reading)
- dysgraphia (difficulty with writing)
- dyscalculia (difficulty with mathematics)

The exact causes of a learning disability are unknown; they may be neurological, biochemical, psychological, or environmental in origin.

Depending on the specific disability, some of the characteristics of college students with learning disabilities may include the following:

### **Study Skills**

- Inability to change from one task to another
- No system for organizing notes and other materials
- Difficulty scheduling time to complete short and long-term assignments
- Difficulty completing tests and in-class assignments without additional time
- Difficulty following directions.

### **Interpersonal Skills**

- Impulsivity

- Difficulty delaying resolution to a problem
- Disorientation in time - misses class and appointments
- Poor self-esteem

### Reading

- Difficulty reading new words, particularly when sound/symbol relationships are inconsistent
- Slow reading rate - takes longer to read a test and other in-class assignments
- Poor comprehension and retention of material read
- Difficulty interpreting charts, graphs, scientific symbols
- Difficulty with complex syntax on objective tests

### Writing

- Problems in organization and sequencing of ideas
- Poor sentence structure
- Incorrect grammar
- Frequent and inconsistent spelling errors
- Difficulty taking notes
- Poor letter formation, capitalization, spacing and punctuation
- Inadequate strategies for monitoring written work

### Oral Language

- Difficulty concentrating in lectures, especially lectures of several hours

- Poor vocabulary, difficulty with word retrieval
- Problems with grammar

Math:

- Difficulty with basic math operations
- Difficulty with aligning problems, number reversals, confusion of symbols
- Poor strategies for monitoring errors
- Difficulty with reasoning
- Difficulty reading and comprehending word problems
- Difficulty with concepts of time and money

### **Causes of Disabilities**

Learning disability causes remain largely unknown. Researchers continue to study the issue to determine why someone develops a learning disorder. Why do some kids have a learning disability while most do not? It's an important question to explore, for in theory, once we know the causes of learning disabilities, we can prevent them (Blumberg, 2023). In their quest to uncover a cause, researchers have identified several possibilities.

Some of the possible causes of learning disabilities include:

- Individual differences in the brain
- Genetics (heredity)
- Environmental factors
- Medical reasons

- Problems during the mother's pregnancy
- Genetics: A person's genetics, or heredity, can contribute to their learning disability. These disorders tend to run in families, so a child with a parent or sibling who has a learning disorder has a higher likelihood of having one of their own compared to children with no family history of such learning problems.
- Environmental factors: It's thought that exposure to toxins in the environment may cause learning disabilities. Lead is a known toxin. If a child is exposed to lead paint or lead in the water, they could develop processing problems in the brain that show up as learning disorders. Also, poor nutrition is a suspect, too.
- Medical conditions. Because brain and body are part of one unified system, it is reasonable to think that medical problems might impact the brain and cause a learning disability to develop. Many medical conditions alter the structure or development of the brain. Chronic ear infections in childhood and neurological illnesses have been implicated as learning disability causes.
- Problems during the mother's pregnancy. When babies are developing in the womb, they are susceptible to what crosses the placenta. If a mother uses substances like drugs, alcohol, and nicotine, the baby can be harmed in many ways. One such way appears to be problems with the brain's ability to process certain information a learning disability.
- These factors have a high probability of being causes of learning disabilities. Currently, the knowledge about the origin of these processing problems is

tentative. Rather than thinking of them as causes, it's more accurate to consider them to be risk factors of learning disabilities. Researchers continue to explore what causes learning disabilities, and one day we'll know with certainty. Then measures can be taken to prevent them from developing at all.

#### Poverty and malnutrition:

Poverty is one of the biggest causes of disability. Poor people are most vulnerable to disability because they are forced to live and work in unsafe environments with poor sanitation, crowded living conditions, and with little access to education, clean water, or enough good food. This makes diseases such as tuberculosis and polio--and the severe disabilities they cause-- much more common because diseases get passed from one person to another more easily.

While she was pregnant, the mother of this girl with cleft lip and palate did not get enough food to eat containing folic acid and calcium (such as dark green leafy vegetables, beans, and eggs).

Many babies who are born in poor families may be born with disabilities or may die in infancy. This may be because the mother did not get enough to eat when she was pregnant. Or it may be because she did not get enough to eat when she was a girl. Starting in childhood, a girl is often given less food to eat than a boy. As a result, she may grow more slowly and her bones may not develop properly, which can later cause difficulty during childbirth-- especially if she does not receive good health care.

War:

In today's wars, more civilians than soldiers are killed or disabled, and most of them are women and children. Explosions cause people to become deaf, blind, and lose their limbs, as well as causing other injuries. Their mental health is also badly affected by the violence. The destruction of homes, schools, health centers, and means of livelihood that results from conflicts and wars leads to increased disability, poverty, and disease.

Land mines, cluster bombs, bullets, and chemicals used in wars cause more disabilities in the world today than anything else. They often injure women who are carrying out their daily activities, such as farming, or gathering water and wood.

Nuclear Accidents:

Many people have suffered after being exposed to massive amounts of radiation. This happened after accidents in nuclear power plants at Three Mile Island in the USA in 1979, and at Chernobyl in the Ukraine in 1986. And it also happened when the USA dropped nuclear bombs on Japan in 1945. These incidents caused widespread destruction and death from exposure to radiation.

The people who survived these accidents and bombing attacks have suffered mainly from cancers--either tumors in various parts of the body, especially in the thyroid gland—or leukemia (cancer of the blood), all of which bring an early death. In communities where these nuclear incidents happened, there has also been an increase in the number of children born with learning difficulties, such as Down syndrome.

Poor access to health care:

Good health care can prevent many disabilities. Difficult labor and birth can cause a baby to be born with a disability such as cerebral palsy. Trained birth attendants who can identify risks and handle emergencies can prevent babies from being born with many disabilities. Immunization can also prevent many disabilities. But many times vaccines are not available, or people who are poor or live far from cities cannot afford them, or there are not enough for everyone.

Medicines and injections:

When used correctly, certain injected medicines, like some vaccinations, are important to protect health and prevent disability. However, there is a worldwide epidemic of unnecessary injections. Each year these unnecessary injections sicken, kill, or disable millions of persons, especially children.

Dangerous work conditions:

Women who work long hours without enough rest are likely to have accidents. Women who work in factories, mines or on agricultural plantations can be exposed to dangerous machinery, tools, or chemicals. Accidents, overwork and exposure to chemicals can all cause disability.

Accidents:

Many women and children get disabling injuries at home by burns from cooking fires, falls, road accidents, and breathing or drinking toxic chemicals. Workplace accidents,

especially in less regulated sectors such as construction, agriculture, mining, and smaller businesses, are a common source of disability.

#### Poisons and pesticides:

Poisons such as lead found in paints, pesticides such as rat poison, and other chemicals can cause disabilities in people and cause birth defects in babies growing in the womb. Smoking or chewing tobacco, breathing smoke, and drinking alcohol during pregnancy can also harm a child before she is born.

### **Perceptions of Students with Learning Disabilities towards Assistive Technology**

Perception can be defined as the way in which something is regarded, understood, or interpreted, perception are in different senses, this includes visual perception, scent perception, touch perception, sound perception, and taste perception. Perception can be positive or negative, most learners believe that assistive technology has a positive influence on students' academic performance, which helps students achieve challenging tasks and overcome academic difficulties, provides students with the opportunity to receive the learning assistance they require, and enables them to be more independent(Ader and Erktin, 2019). Assistive technology is importance and has help learners of disabilities to succeed. Although, some people believe assistive technology makes them dependent and students with disabilities will not be able to do the tasks on their own (Edyburn, 2016). Individuals with disabilities sometimes have difficulty with tasks, leading to others making decisions for them (Carlson, Ehrlich, Berland, & Bailey,

2018). Most students with disabilities in the classroom, assistive technology has the potential to enhance and increase their learning and academic performance (Edyburn, 2016). Currently, many students with disabilities are included in the classroom. Students may have difficulties in different areas like reading, listening, organizing information, or writing. An inclusive classroom for Assistive Technology may help learners to overcome some of their challenges, increase, maintain, or improve the functional capabilities.

Assistive technology refers to “any item, piece of equipment or product system, whether acquired commercially off the shelf, modified, or customized, that is used to increase, maintain, or improve the functional capabilities of a child with a disability” (Individuals with Disabilities Education Act, 2004). Relevant assistive technology for students with learning disabilities includes, but is not limited to, computer programs that provide text- to-speech (Kurzweil 3000), speech-to-text (Dragon Naturally Speaking), word prediction capabilities (WordQ), and graphic organizers (Inspiration). Blackhurst (2005) suggests that assistive technology can be used to assist learning, to make learning environments more accessible, and to enhance independence amongst individuals with learning disabilities. Assistive technology can also help individuals to accomplish educational goals, and when used strategically, technology can help bypass conditions that once prevented students from obtaining higher levels of learning. The use of assistive technology may provide a compensatory alternative, and when embedded within quality writing instruction, improved achievement may ensue (MacArthur, 2009). When employed by a supportive teacher, assistive technology may also help students obtain

success in reading and writing (Fasting & Halaas Lyster, 2005) and, when embedded within effective strategy instruction, assistive technology can provide the means for students to complete organized and well-written assignments that are reflective of their knowledge and skills (MacArthur, 2009). Individualized education plans have increasingly recommended the use of assistive technology to aid the written expression of students with learning disabilities (Behrmann & Marci Kinas, 2002). Although recent regulations have included technology mandates and funding to support a variety of technology training and service initiatives, assistive technology is often not utilized to its full potential because the issues surrounding assistive technology service delivery are complex and involve much more than the basic operation of the technology (QIAT, 2000).

### **Barriers towards the use of Assistive Technology in Learning by Students of Disabilities**

Some of the Barriers and challenges that could occur with the use of assistive technology

#### **Challenges of Assistive technology**

- Expensive.
- Not readily available.

- Socia-economic issues.
- Lack of proper training.
- Lack of resources.
- Lack of awareness.
- Poverty.

Barriers impacting access to assistive technology include low awareness, high costs, limited physical access, inadequate product range, procurement challenges, workforce capacity gaps, inadequate policy, insufficient funding, assistive technology sector fragmentation and sociodemographic obstacles.

For example, people with visual disabilities may seek to use specialist text-to-speech software to present text-based information available in auditory form. For many people with disabilities however, they are excluded from using AT by factors such as the awareness of the technology, the prohibitive cost of specialist technology, and the requirement for installation, training, and support. Efforts are also underway by advocacy bodies such as the European Disability Platform have sought to increase awareness of the issue through the publication of policy and guidance statements. While legislation alone may not fully address some of the concerns of people with disabilities, it is, however, likely to increase their opportunities to purchase these technologies with the same consumer rights as all other users. It is likely that an increased uptake in these consumer devices by people with disabilities will open greater opportunities for discussion and

debate as to how greater access to the benefits of the technology can be balanced with the need to ensure the privacy and autonomy of consumers with disabilities.

Obtaining and maintaining ATs is one of the major challenges because of funding issues, a lack of resources and materials in classrooms or schools

Barriers impacting access to assistive technology include low awareness, high costs, limited physical access, inadequate product range, procurement challenges, workforce capacity gaps, inadequate policy, insufficient funding, assistive technology sector fragmentation and sociodemographic obstacles.

### **Ways to Assist and Improve Disabilities Students with Learning of Assistive Technology**

The most common treatment for learning disabilities is special education. Specially trained teachers may perform a formal assessment to understand the child's academic and intellectual potential (Fixsen, 2015). They will also look at the level of academic performance. An assistive technology (AT) learning and basic approach is to teach learning skills by building on the child's abilities and strengths while correcting disabilities and weaknesses. The use of professionals such as speech and language therapists also may help. Some medications may help the child learn by enhancing attention and concentration. Psychological therapies may also be used (Abbott & Sanders, 2012).

The use of up-to-date training on the use of assistive technology equipment's, for learning and teaching of students.

**Multisensory Learning:** Multisensory learning is using multiple senses, such as sight, sound, touch and movement, to help students learn and remember information. This approach is particularly effective for students with learning disabilities or attention deficit hyperactivity disorder (ADHD) who may struggle with traditional teaching methods. A special education teacher may use visual aids like pictures or diagrams to help students understand concepts. They may also incorporate movement into learning like using dance or yoga to teach social skills or mindfulness (Eratay & Yesriroglu, 2017).

**Technology Integration:** Technology can be a valuable tool for special education teachers to enhance learning. For example, students with visual impairments may use text-to-speech software to access written materials, while students with hearing impairments may use closed captioning to access audio content. Special education teachers can also use technology to create interactive and engaging lessons like educational games or simulations that provide students with hands-on learning experiences.

Government should budget enough fund for the purchase of Artificial Intelligence equipment in schools that will enhance teaching and learning.

Students with special needs have unique learning challenges that require specialized attention and support, different types of special needs students, including those with learning disabilities, physical disabilities, emotional and behavioral disorders,

and intellectual disabilities (Ozbal and Eski, 2019). This involves understanding and empathizing with their unique challenges, establishing trust and rapport, and creating a safe and supportive learning environment (Bloh, 2017).

Technology Integration, this technology can be a valuable tool for disabilities education teachers to enhance learning. For example, students with visual impairments may use text-to-speech software to access written materials, while students with hearing impairments may use closed captioning to access audio content. Students of disabilities needs have unique learning challenges that require specialized attention and support, different types of special needs students, including those with learning disabilities, physical disabilities, emotional and behavioral disorders, and intellectual disabilities.

These students face unique challenges that may affect their academic progress and social development, and to utilize teaching strategies that can help them not only overcome these challenges but thrive in an educational environment.

For example, students with special needs face several challenges that can impact their academic progress and social development. They may struggle with understanding complex instructions, staying focused on tasks, organizing their thoughts or expressing themselves verbally or in writing. This might include adapting the curriculum, modifying classroom routines, providing visual aids, using assistive technology or breaking down complex concepts into smaller, more manageable parts. In addition, to adapting the teaching methods, special education teachers must also be skilled in building strong relationships with their students and their families. This involves understanding and

empathizing with their unique challenges, establishing trust and rapport, and creating a safe and supportive learning environment.

### **Review of Empirical Studies**

Howes and Davies (2007) conducted their research with the aims of their study was to develop a framework for the use of Assistive Technologies for the support of all learners, professional collaboration was an element to be considered. Their analysis of meaningful inclusion in secondary schools raises the idea that “teachers’ active engagement is seen to be central to achieving greater inclusion, it was concluded that Individuals with Disabilities requires that schools must help students with special needs to access, participate, and progress in the general curriculum. Technology can help schools fulfill these requirements, as well as entrench wellness theory through the use of AT, and promote the involvement and success of students, regardless of ability or disability.

Harris & Smith in 2008 carried another research on students of disabilities using Assistive technology by engaging the use Laptop. The introduction of the use of laptops in the class provided not just to students with physical, cognitive, and emotional disabilities, but all students. This has been shown to be very successful in numerous studies like the state of Maine’s Laptop Technology Initiative. The laptops were shown to improve the engagement and motivation (thus promoting emotional wellness), the ability to work independently, increase output and increase interaction with others in the class for all students, especially for those with disabilities.

Furthermore Evans in 2001 carried a research on Assistive Technology using infrared technology for physical disabilities students. The existing technology available for mainstream was use, much of which was produced for medical disability (thereby supporting the physical wellness dimension). This wireless, infrared technology enhances and distributes the teacher's voice above background noise in the classroom, making the sound more audible to students. It enhanced quality of the teacher's voice, not the "loudness," makes a difference in student learning. Originally developed for students with mild hearing losses, this technology enabled these students to stay in regular classrooms, rather than be moved to more expensive special education classes. Research shows that all students, especially those with attention deficit problems and those for whom listening is an effective learning style, also benefit from this technology. Once again, this brief example of AT in the classroom serves to illustrate how inclusion for all students can be facilitated and thus enhance not only achievement in the classroom, but attainment of personal wellness, as dimensions such as physical and intellectual capacity of the learners.

Okolo & Diedrich in 2014 also carried a research on Assistive Technology (AT) in a classrooms and that AT can be instrumental in supporting emotional intelligence and build the idea of a "can do" attitude. That student of disabilities cab being able to do something in a classroom, such as read independently through the use of audio books or text-to- speech software (Dragon Speak or Read Out Loud 6), Assistive Technology can boost confidence and develop self esteem in learners. That there is no limit to reading,

and also to the use of computers to assist in writing. They found that Assistive Technology allows students to benefit from technologies that enable them to perform tasks that they were formerly unable to accomplish, or had great difficulty accomplishing

### **Summary of Related Literature**

Assistive technology are devices such as walkers and wheelchairs, as well as hardware, software, and peripherals that assist people with disabilities in accessing computers or other information technologies. Assistive technology (AT) is any device that helps a learner with a disability completes an everyday task (Okennea, 2020). An assistive technology service is any service that directly assists a child with a disability in the selection, acquisition, and use of an assistive technology device (IDEA, 2004). Learning disability is that effects that affect the acquisition of knowledge and skills, in particular a neurodevelopmental condition affecting intellectual processes, educational attainment, and the acquisition of skills needed for independent living and social functioning. (Melanie, 2023) Learning disabilities are problems in processing words or information, causing otherwise bright and capable children to have difficulty learning. The disabilities involve language reading, writing, speaking, and/or listening.

Perception can be defined as the way in which something is regarded, understood, or interpreted, perception are in different senses, this includes visual perception, scent perception, touch perception, sound perception, and taste perception. Perception can be positive or negative, most learners believe that assistive technology has a positive

influence on students' academic performance, which helps students achieve challenging tasks and overcome academic difficulties, provides students with the opportunity to receive the learning assistance they require, and enables them to be more independent(Ader and Erktin, 2019).

Technology can be a valuable tool for special education teachers to enhance learning. For example, students with visual impairments may use text-to-speech software to access written materials, while students with hearing impairments may use closed captioning to access audio content. Government should budget enough fund for the purchase of Artificial Intelligence equipment in schools that will enhance teaching and learning. Students with special needs have unique learning challenges that require specialized attention and support. Teachers, families members and educational stakeholder should show understanding and having empathy with their unique challenges, establishing trust and rapport, and creating a safe and supportive learning environment.

## **CHAPTER THREE**

### **METHODOLOGY**

This chapter describe the procedures used in carryout the study. These are discussed under the following sub-headings,

- Design of the Study

- Population of the Study
- Sample and Sampling Techniques
- Research Instrumentation
- Validity of the Instrument
- Method of Data Collection
- Method of Data Analysis

### **Design of the Study**

The descriptive survey research design was employed for this study. In a descriptive survey research design, the data is collected from a sample of the population with specific characteristics.

### **Population of the Study**

The population of the study comprises of selected students in public and private secondary school of disabilities (physical challenge) in Oredo Local Government Area of Edo State. And a total of hundred (100) students of disabilities will be the size of the population. Government Schools of disability at Ukhegie street, off I.C.E. Road, Benin city, Oredo, (Public) Igbenedion Educational Centre, Off Sapele Road, and Nosakhere Model Educational Centre New Benin City (Private)

### **Sample and Sampling Techniques**

Random sampling technique was used to select hundred (100) students of physical challenge students of disabilities from one public secondary school and two private secondary schools in Oredo Local Government Area.

### **Research Instrument**

The research Instrument of data collection is a questionnaire titled: **Perceptions of Students with Learning Disabilities towards Assistive Technology in Learning.** The questionnaire comprises of two sections. Section A and B. Section A elicits of personal information such as; sex, age and class and Section B consists of twenty structured items questions that have the option of SA, A, S, SD. .

### **Validity of the Instrument**

The instrument which is the questionnaire was validated by the project supervisor and two other experts from the Department.

### **Method of Data Collection**

Hundred (100) copies of the questionnaire were distributed to students of physically challenge in Oredo Government Area, Edo State and their responses were collated immediately, to prevent loss of questionnaire.

### **Method of Data Analysis**

Data collected for the purpose of this study were analyzed using frequency count and simple percentage, mean and standard deviation.

## **CHAPTER FOUR**

### **PRESENTATION OF DATA AND DISCUSSION OF FINDINGS**

This chapter presents the results obtained from analysis of data using the statistical procedures discussed earlier in chapter three. The analysis of the data is presented in two sections, the first section deals with the presentation of results and the second section presents the discussion of the findings.

Likert scale of four points was used with items as positive and negative on a 2.50 rating decision. Strongly Agree (S A) =4, Agree= 3, Disagree= 2, Strongly Disagree =1. The analysis was carried out with the aid of IBM statistical software. Therefore, 2.50 point above is accept and 2.50 point below is reject.

## **Presentation of Results**

**Research Question 1: What is the Perceptions of Students with Learning Disabilities towards Assistive Technology in Learning in Oredo Local Government Area of Edo State**

**Table 1: Perceptions of Students with Learning Disabilities towards Assistive Technology in Learning in Oredo Local Government Area of Edo State.**

S/N	ITEMS	Sum	SA	A	D	SD	Mean	St. D	Remark
1.	Assistive technology enhance learning	100	41	33	16	10	3.0	0.89	Accept
2.	Assistive Technology Increase academic knowledge	100	32	42	14	12	2.9	0.87	Accept
3..	Assistive technology provides opportunity to do well-written assignments	100	26	40	15	15	2.8	0.86	Accept
4.	Assistive technology help to overcome some academic challenges	100	33	42	11	9	2.9	0.87	Accept
5.	Assistive technology help students obtain success in reading and writing	100	24	42	29	11	2.7	0.85	Accept

**Criterion mean = 2.5**

Table 1 revealed that the mean response to each of the 5 items in the table is above the 2.50 (criteria mean). This indicates that majority of the respondents agreed with the items

in the table to research question one, that state, what is the Perceptions of Students with Learning Disabilities Towards Assistive Technology in Learning in Oredo Local Government Area of Edo State. In item 1, Assistive technology enhance learning, have mean 3.0. Item 2, Assistive Technology Increase academic knowledge, mean of 2.9. Item 3, Assistive technology provides opportunity to do well-written assignments, mean of 2.8. Item 4, Assistive technology help to overcome some academic challenges, mean of 2.9. And item 5, Assistive technology help students obtain success in reading and writing, mean of 2.7. From all the five item in the table all the mean response is above the 2.5 rating scale.

**Research Question 2: Do students with learning Disabilities often make use of Assistive Technology for learning in Oredo Local Government Area of Edo State?**

**Table 2: Students with learning Disabilities often make use of Assistive Technology for learning in Oredo Local Government Area of Edo State?**

S/N	ITEMS	Sum	SA	A	D	SD	Mean	St. D	Remark
6.	Students with disabilities do not make use of Assistive Technology	100	20	59	18	3	3.0	0.89	Accept
7.	There is no Assistive Technology Device in Our School	100	18	52	11	19	2.7	0.85	Accept
8.	I have not heard about Assistive Technology	100	17	30	19	34	2.3	0.78	reject
9.	Assistive Technology makes students to be lazy in academic works	100	14	27	33	26	2.2	0.74	Reject
10.	I don't like using Assistive Technology	100	18	39	25	18	2.6	0.84	Accept

**Criterion mean = 2.5**

Table 2, revealed that the mean response to each of the 5 items in the table is above the 2.50 (Criteria mean). From the table majority of the respondents agreed with the items in the table to research question two, that state, Do students with learning Disabilities often make use of Assistive Technology for learning in Oredo Local Government Area of Edo State. Item 6, Students of disabilities are not making use of Assistive Technology, mean

of 3.0. Item 8, there is no Assistive Technology Device in Our School, mean of 2.7 Item 9, I have not heard about Assistive Technology, mean of 2.3. Item 9, Assistive Technology makes students to be lazy in academic works, mean of 2.2. And Item 10, I don't like using Assistive Technology, mean of 2.6. From the table item, 8 and 9 are below the 2.5 rating. While item 6, 7, and 10 is above the rating of 2.5. This indicates majority affirm to the question raised since the criteria mean of 2.5.

**Research Question 3: What are perceive barriers towards the use of Assistive Technology in learning by students of Disabilities in Oredo Local Government Area of Edo State?**

**Table 3: Perceive barriers towards the use of Assistive Technology in learning by students of Disabilities in Oredo Local Government Area of Edo State?**

S/N	ITEMS	Sum	SA	A	D	SD	Mean	St. D	Remark
11.	Assistive Technology equipment is very expensive	100	31	40	19	10	2.9	0.89	Accept
12.	Lack of proper training on the use of Assistive Technology	100	18	66	11	5	3.0	0.91	Accept
13.	Lack of awareness on the importance of Assistive Technology	100	13	63	9	15	2.7	0.87	Accept
14.	Lack installation assistive technologist experts in school	100	18	59	15	9	2.3	0.78	Reject
15.	No special build class room laboratory for Assistive Technology equipment	100	24	60	13	3	3.0	0.91	Accept

**Criterion mean = 2.5**

Table 3, revealed that the mean response to each of the 5 items in the table is above the 2.50 (criteria mean). This indicates that majority of the respondents agreed with the items

in the table to research question three, that state, What are perceive barriers towards the use of Assistive Technology in learning by students of Disabilities in Oredo Local Government Area of Edo State. In item 11, Assistive Technology equipment is very expensive, have the mean of 2.9. Item 12, Lack of proper training on the use of Assistive Technology, mean of 3.0. Item 13, Lack of awareness on the importance of Assistive Technology, mean of 2.7. Item 14, Lack installation assistive technologist experts in school, mean of 2.3. And item 15, No special build class room laboratory for Assistive Technology equipment, mean of 3.0. This indicate that respondents mean are above the 2.5 criteria mean.

**Research Question 4: What ways to assist and improve disabilities students with learning of Assistive Technology in Oredo Local Government Area of Edo State.**

**Table 4: ways to assist and improve disabilities students with learning of Assistive Technology in Oredo Local Government Area of Edo State.**

S/N	ITEMS	Sum	SA	A	D	SD	Mean	St. D	Remark
16.	Provision of funds for purchase of Assistive Technology Equipment	100	33	41	17	9	2.9	0.93	Accept
17.	creating a safe and supportive learning environment	100	36	53	7	4	2.9	0.91	Accept
18.	Provide students with visual impairments speech software to access written materials.	100	26	44	19	11	2.8	0.90	Accept
19.	Employment of qualified trained teachers on Assistive Technology	100	31	40	18	11	2.8	0.93	Accept
20	Provision of class laboratory equipment for Assistive Technology	100	33	42	17	8	3.0	0.90	Accept

**Criterion = 2.5**

Table 4, revealed that the mean response to each of the 5 items in the table is above the 2.50 (criteria mean). This indicates that majority of the respondents agreed with the items in the table to research question four, that state, What ways to assist and improve

disabilities students with learning of Assistive Technology in Oredo Local Government Area of Edo State. In item 16, Provision of funds for purchase of Assistive Technology Equipment, have mean of 2.9. Item 17, creating a safe and supportive learning environment, mean of 2.9. Item 18, Provide students with visual impairments speech software to access written materials, mean of 2.8. Item 19, Employment of qualified trained teachers on Assistive Technology, mean of 2.8. And item 20, Provision of class laboratory equipment for Assistive Technology, mean of 3.0. From the above, it is indicate that all the respondents agreed to all the five item raised in the since the mean rating is above 2.5. This affirms to the ways to assist and improved disabilities students with learning of Assistive Technology.

### **Discussion of Findings**

Findings on research question 1 revealed that all the items are above the 2.5 criteria mean. To the research question that state, what is the Perceptions of Students with Learning Disabilities towards Assistive Technology in Learning in Oredo Local Government Area of Edo State. In item 1, Assistive technology enhances learning, have mean 3.0. Item 2, Assistive Technology Increase academic knowledge, mean of 2.9. Item 3, Assistive technology provides opportunity to do well-written assignments, mean of 2.8. Item 4, Assistive technology help to overcome some academic challenges, mean of 2.9. And item 5, Assistive technology help students obtain success in reading and writing, mean of 2.7. From all the five item in the table all the mean response is above the 2.5

rating scale. This is in line with Bausch & Hasselbring, 2016 which asserted that using assistive technology with learning disabilities help developing students in the classroom.

Also, findings from research question 2 revealed that the 5 items in the table is above the 2.50 (Criteria mean). From the table majority of the respondents agreed with the items in the table to research question two, that state, Do students with learning Disabilities often make use of Assistive Technology for learning in Oredo Local Government Area of Edo State. Item 6, Students of disabilities are not making use of Assistive Technology, mean of 3.0. Item 8, there is no Assistive Technology Device in Our School, mean of 2.7 Item 9, I have not heard about Assistive Technology, mean of 2.3. Item 9, Assistive Technology makes students to be lazy in academic works, mean of 2.2. And Item 10, I don't like using Assistive Technology, mean of 2.6. from the table item, 8 and 9 are below the 2.5 rating. While item 6, 7, and 10 is above the rating of 2.5. This indicate majority affirm to the question raised since the criteria mean of 2.5.

Furthermore, study finding from research question 3, revealed that the mean response to each of the 5 items in the table is above the 2.50 (criteria mean). This indicates that majority of the respondents agreed with the items in the table to research question three, that state, What are perceive barriers towards the use of Assistive Technology in learning by students of Disabilities in Oredo Local Government Area of Edo State. In item 11, Assistive Technology equipment is very expensive, have the mean of 2.9. Item 12, Lack of proper training on the use of Assistive Technology, mean of 3.0. Item 13, Lack of awareness on the importance of Assistive Technology, mean of 2.7.

Item 14, Lack installation assistive technologist experts in school, mean of 2.3. And item 15, No special build class room laboratory for Assistive Technology equipment, mean of 3.0. This indicate that respondents mean are above the 2.5 criteria mean. This is line with Okennea (2020) who opined that there are barriers like lack of proper training and lack of resources are hindrance towards study of Assistive Technology.

Finally, findings on research question 4, revealed that the items is above the criteria mean of 2.5. To research question four, that state, What ways to assist and improve disabilities students with learning of Assistive Technology in Oredo Local Government Area of Edo State. In item 16, Provision of funds for purchase of Assistive Technology Equipment, have mean of 2.9. Item 17, creating a safe and supportive learning environment, mean of 2.9. Item 18, Provide students with visual impairments speech software to access written materials, mean of 2.8. Item 19, Employment of qualified trained teachers on Assistive Technology, mean of 2.8. And item 20, Provision of class laboratory equipment for Assistive Technology, mean of 3.0. from the above, it is indicate that all the respondents agreed to all the five item raised in the since the mean rating is above 2.5. This affirms to the ways to assist and improved disabilities students with learning of Assistive Technology, this is in line with Fixsen (2015) who asserted that provision of resources help to improve learning and training of disability students.

## CHAPTER FIVE

### SUMMARY, CONCLUSION AND RECOMMENDATIONS

#### Summary

This research work is on the perceptions of students with learning disabilities towards assistive technology in learning. The study comprised of five chapters. To carry out the study four research questions raised, which are;

1. What is the Perceptions of Students with Learning Disabilities towards Assistive Technology in Learning in Oredo Local Government Area of Edo State?
2. Do students with learning Disabilities often make use of Assistive Technology for learning in Oredo Local Government Area of Edo State?
3. What are perceived barriers towards the use of Assistive Technology in learning by students of Disabilities in Oredo Local Government Area of Edo State?
4. What are the ways to improve the perception of disabilities students towards the use of Assistive Technology in Oredo Local Government Area of Edo State?

Descriptive survey research design was employed for this study. The population of study was 100 respondents which were selected from various schools in Oredo Local Government Area of Edo State. A structured questionnaire was raised to gathered information from the respondents which have option of Strongly Agree (SA), Agree (A), Disagree (D), Strongly Disagree (SD). A likert scale of four points was used with items

as positive and negative on a 2.50 rating scale. The data was analysed using frequency counts, mean, and standard deviation. Result from data was analyze and result interpreted.

## **Findings**

From the results obtained from the analysis of the data, the following findings emerged:

1. That Assistive technology enhance students learning, increased academic knowledge and help to overcome academic some academic challenges. Findings discovered that assistive help in reading and writing and resolve complicated schools assignment.
2. Findings observed that there are lack of assistive technology equipment in major schools in Oredo Local Government Area of Edo State and assistive technology equipment's are too expensive to purchase.
3. Findings observed that their are lack of laboratory building to store assistive technology the equipment.
4. Findings discovered that there are no software like visual impairments speech to access written materials.

## **Conclusion**

Based on the findings, the following conclusion were drawn, that assistive technology enhance students learning, resolve academic challenges and complicated issues in Oredo Local Government special schools. It was also discovered that there a

lack of laboratory equipment's and lack of software like visual impairment speech hinders student learning.

### **Recommendations**

The following recommendations are hereby suggested.

1. Government should provide enough assistive technology equipment's to students of disabilities to enhance their learning.
2. Schools authority should create space and building where assistive technology will be stored.
3. NGOs and Government should help in sponsoring the purchase of Assistive technology equipment's for students of disabilities.
4. Government and those in school authority should make special consideration to students of disabilities by creating improvised materials to enhanced academic performance.
5. Software materials and learning facilities should be made available when classes is in progress.

### **Suggestion for Further Studies**

1. The use of Assistive Technology to solve educational challenges of disability pupils in schools in Ovia North East Local Government Area, Edo State.
2. The attitude of students on the use of Assistive Technology in pupils of Egor LGA, Edo State.

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**APPENDICES**  
**DEPARTMENT OF SPECIAL EDUCATIONAL EVALUATION AND  
COUNSELING PSYCHOLOGY**  
**FACULTY OF EDUCATION**  
**UNIVERSITY OF BENIN**  
**BENIN CITY**

**PERCEPTIONS OF STUDENTS WITH LEARNING DISABILITIES TOWARDS  
THE USE OF ASSISTIVE TECHNOLOGY IN THEIR LEARNING PROCESS IN  
OREDO LOCAL GOVERNMENT AREA OF EDO STATE**

Dear Respondents,

I am a final year special education student of the Department of Educational Evaluation and Counseling Psychology. This questionnaire is designed to generate data relating to; **The Perceptions of Students with Learning Disabilities towards the use of Assistive Technology in their Learning process in Oredo Local Government Area of Edo State** This research is purely for academic purpose. Please, endeavor to respond honestly by ticking (√) the options that apply to you.

Your responses will be treated with utmost confidentiality.

Yours faithfully,

Favour Uyioghosa OMOREGIE

The Researcher.

**SECTION B**

Instruction: you are required to tick (√) as the extent to which you are with each statement.

**KEYS: SA – STRONGLY AGREE**

**A – AGREE**

**D- DISAGREE**

**SD – STRONGLY DISAGREE**

S/N	ITEMS	SA	A	SD	D
	<b>What is the Perceptions of Students with Learning Disabilities Towards Assistive Technology in Learning? in Oredo Local Government Area of Edo State</b>				
1.	Assistive technology enhance learning				
2.	Assistive Technology Increase academic knowledge				
3.	Assistive technology provides opportunity to do assignments well				
4.	Assistive technology help to overcome some academic challenges				
5.	Assistive technology help students obtain success in reading and writing				
	<b>Do students with learning Disabilities often make use of Assistive Technology for learning? in Oredo Local Government Area of Edo State</b>				
6.	Students of disabilities are not making use of Assistive				

	Technology				
7.	There is no Assistive Technology Device in our School				
8.	I have not heard about Assistive Technology				
9.	Assistive Technology makes students to be lazy in academic works				
10.	I don't like using Assistive Technology				
	<b>What are perceived barriers towards the use of Assistive Technology in learning by students of Disabilities? in Oredo Local Government Area of Edo State</b>				
11.	Assistive Technology equipment is very expensive				
12.	Lack of proper training on the use of Assistive Technology				
13.	Lack of awareness on the importance of Assistive Technology				
14.	Lack installation assistive technologist experts in school				
15.	No special build class room laboratory for Assistive Technology equipment				
	<b>What are ways to assist and improve disabilities students with learning of Assistive Technology? in Oredo Local Government Area of Edo State.</b>				
16.	Provision of funds for purchase of Assistive Technology Equipment				
17.	creating a safe and supportive learning environment				
18.	Provide students with visual impairments speech software to access written materials.				

19.	Employment of qualified trained teachers on Assistive Technology				
20	Provision of class laboratory equipment for Assistive Technology				