A SURVEY OF LEARNING DISABILITIES, PERCEPTION OF SELF AND SCHOOL ENVIRONMENT AMONG PUPILS IN AKWA IBOM STATE, NIGERIA

BY

EKANEM, MARIA COLUMBA
EDF/Ph.D/09/003

A DOCTORAL DEGREE THESIS CARRIED OUT IN THE DEPARTMENT OF EDUCATIONAL FOUNDATIONS FACULTY OF EDUCATION, UNIVERSITY OF CALABAR, CALABAR – NIGERIA

SUBMITTED TO

GRADUATE SCHOOL
UNIVERSITY OF CALABAR
CALABAR - NIGERIA

IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF DOCTORATE DEGREE (Ph.D) IN EDUCATIONAL PSYCHOLOGY

FEBRUARY, 2020.

DECLARATION

I, **Ekanem, Maria Columba** with registration number **EDF/Ph.D/09/003** hereby declare that this work titled "**A survey of learning disabilities, perception of self and school environment among pupils in Akwa Ibom State, Nigeria**" is the product of my own research effort under the supervision of Prof. A. J. Isangedighi and Prof. (Mrs.) Nonso Bisong and has not been presented elsewhere for the award of a degree or certificate. All sources of information have been duly acknowledged.

Signature: M.C. Ekanem

Date: 24/02/2020

CERTIFICATION

This is to certify that this thesis titled "**A survey of learning disabilities, perception of self and school environment among pupils in Akwa Ibom State, Nigeria**" and carried out by **Ekanem, Maria Columba** with registration number **EDF/Ph.D/09/003** has been examined and found worthy of the award of the degree of Doctor of Philosophy (Ph.D) in Educational Psychology.

Prof. A. J. Isangedighi
(Chief Supervisor)
Qualification/Status: B.Ed (Hons) (Ibadan)
M.A., Ph.D (Michigan) Ann Arbor, USA
Professor of Educational Psychology

Signature: _____
Date: 24/02/2020

Prof. (Mrs.) Nonso Bisong
(Supervisor)
Qualification/Status: B.A. (Edu); M.Ed; MPA; Ph.D
Professor of Educational Psychology

Signature: _____
Date: 24/02/2020

Prof. (Mrs.) Nonso Bisong
(Head of Department)
Qualification/Status: B.A. (Edu); M.Ed; MPA; Ph.D
Professor of Educational Psychology

Signature: _____
Date: 24/02/2020

Dr. Emmanuel U. Ikwen
(Graduate School Representative)
Qualification/Status: Senior Lecturer
Graduate School Representative

Signature _____
Date: 24-02-2020

Professor Imaobong David Akpan
(External Examiner)
Qualification/Status:
Professor of Educational Psychology

Signature: _____
Date: 24/02/2020

ACKNOWLEDGEMENTS

The researcher wishes to acknowledge with profound gratitude some personalities, who collectively and individually propelled, guided, encouraged and urged her to complete this work. Her overwhelming gratitude first and foremost goes to God Almighty for His benevolence, love, mercy and grace to bring her study to a successful completion. When the going became rugged He remained her Rock. When the entire world came crumbling on her and the debris strewn all around her, God kept her focused to achieve this priceless goal. It may have taken ages but at last she feel accomplished and fulfilled.

She sincerely appreciates her supervisors, Prof. A. J. Isangedighi and Prof. (Mrs.) Nonso Bisong (who is the Head of Department now) for their assiduity, patience and painstakingly steering this work in the right direction. Also, she joyfully acknowledges the following great teachers: Prof. M. T. Joshua, Prof. (Mrs.) A. E. Asim, Prof. E. E. Ekuri, Dr. (Mrs.) M. O. Okon, Dr. (Mrs) J. Njoku, Dr. M. Eyo, Rev. Fr. Dr. I. Obot and other academics from other Departments and Institutions like Profs. Mark and Suzan Umoh; Profs. Memfin and Comfort Ekpo; Prof. and Dr. (Mrs) Ani Nkang, and Prof. Akon Joshua for placing their knowledge bank at her disposal at different stages of her academic trip.

The researcher remains highly indebted to her dear husband, Rev. I. J. Etokebe, her daughters Koksy and Ty-girl, Son Engr. Gideon, her late father; Knight C. L. Ekanem who passed on few days before her proposal defence, her

and course mates; Drs. Esther Chi Nwogwugwu; Mary. D. Dazi; Rose Adie and many others. Lastly, the researcher is grateful to all the authors of the relevant materials she consulted in the course of this research, the skilful computer operator and her team, Mrs. E. Ekpenyong who worked tirelessly in the compilation of this work.

ABSTRACT

This study was a survey of learning disabilities, perception of self and school environment among pupils in Akwa Ibom State, Nigeria. Literature review was done according to the variables under study. The study adopted a survey research design, and was situated in Akwa Ibom state, Nigeria. The population of the study included 153,107 primary five pupils from public primary schools in Akwa Ibom State. The sample of the study was 740 selected through stratified random sampling techniques. A questionnaire titled "Learning Disabilities and Perception Battery" (LDPB) was the instrument used for data collection. The reliability index of .71-.78 was determined using Cronbach Alpha reliability method. The data collected from 732 of the subjects were analysed using descriptive statistics and Multiple Linear Regression analysis tested at .05 level of significance. The result of the analyses revealed that dyspraxia was the most prevalent among the pupils, followed by dyscalculia, dyslexia and dysgraphia respectively. The result also revealed that the pupils have good and positive perceptions of themselves, their classroom instruction and their school physical and social environment. The result further revealed that dyslexia, dysgraphia, dyscalculia, dyspraxia and overall learning disabilities all had significant negative relationship with primary school pupils' perception of self. It was also revealed that dysgraphia had significant negative relationship with pupils' perception of their school physical environment while dyscalculia had significant positive relationship with pupils' perception of their school physical environment, and dyspraxia had a negative relationship with pupils' perception of their school physical environment which was not statistically significant while dyslexia and overall learning disabilities had positive relationship with pupils' perception of their school physical environment which was also not statistically significant. Also, dyslexia, dysgraphia, dyscalculia, dyspraxia and overall learning disabilities had significant negative relationship with the pupils' perception of their school social environment. Further examination of the result revealed that dyslexia, dysgraphia, dyscalculia, dyspraxia and overall learning disabilities had significant negative relationship with pupils' perception of classroom instruction. The results finally revealed that learning disability when taken together significantly predicted primary school pupils' perception of self, school physical environment, school social environment and classroom instruction. Based on the findings of this study, it was recommended among others that teachers, school psychologists and counsellors should devise deliberate strategies to checkmate incidence of dysgraphia among pupils in primary schools and school administrators should expand their considerations for decision making to include assessment of learning with respect to clinical records on areas of learning disabilities of the pupils.

(***Word count: 408***)

TABLE OF CONTENTS

CHAPTER TWO: LITERATURE REVIEW

CHAPTER THREE: RESEARCH METHODOLOGY

LIST OF TABLES

LIST OF FIGURES

CHAPTER ONE

INTRODUCTION

1.1 Background to the study

In all countries, Nigeria inclusive, children grow up largely through schools. In school they acquire knowledge and skills which equip them for effective social role-playing upon growing into adults. However, in passing through schools, children do not always learn and perform equally. There are always differences among them in school learning and social activities. Most children find school and learning very exciting and interesting while some find school learning boring and of little interest, thus they sometimes develop fear or anxiety which intrudes into their abilities to cope adequately. In every class, there are always children who perform excellently and also those who perform below average. Differences in learners' learning and behaviour have long been noticed by early learning theorists like Edward Thorndike and B. F. Skinner who postulated that learning results from learner-environment interaction. So, the degree and quality of learning a child is capable of, depends on his person, his/her characteristics and the forces in the learning environment (Isangedighi, 2011). This implies that the personal characteristics a child carries to the learning environment are potent factors in his or her learning and achievement. These personal characteristics include perception.

Perception is one's unique interpretation of objects and events in one's environment (Isangedighi, 2011 & Nnachi, 2003). It entails the way one thinks about or understands a thing or someone. This implies the use of one's senses in organizing, identifying and interpreting sensory information so as to represent one's environment. It is central to learning because it shapes what is learnt. Typical areas

of the pupils' perception in school are: (a) The pupil's self-perception (academically, physically, socially, morally) (b) Perception of school physical environment (landscape, infrastructure, equipment and facilities); (c) Perception of school social environment (pupil-teacher relationship, pupil-peer relationship, routine school activities, co-curricular activities, tone of school discipline (school rules and regulation) and perception of classroom instructions.

The school system is concerned about the growth of learners. For that reason, tests and examinations are routinely administered to keep record of how adequately each child grows in school. In some advanced countries as Canada, Britain and the United States of America (USA) routine testing by official requirement, goes beyond testing of learning through class tests and examinations in respect of various school subjects (Isangedighi, 2011). By requirement, testing covers in addition to learning, ability for such conditions as learning disabilities, perception and interest. The routine testing and record keeping of achievement, in learning, in respect of other learner characteristics provide accessible information for classroom teachers and other school personnel who have need for intervention in the learners they interact with.

In Nigeria, tests and examinations conducted in schools do not officially, or by routine practice, go beyond achievement tests for assessment of learning in respect of the various school subjects. The practice of testing and keeping records on such personal characteristics as ability, perception or characteristics of such conditions as learning disabilities appear virtually non-existent. In Akwa Ibom State, where the researcher has been a long standing teacher, and has had the privilege of visiting a large number of schools over the years on official task of

supervising her students' teaching practice, there is no sign that schools carry their testing and assessment beyond the precinct of learning in respect of relevant school subjects. This leaves much to be desired.

In one of the schools the researcher visited to supervise the teaching of one of her students, she came in contact with a Primary Five pupil who was very sociable, appeared intelligent but each time she was given a task, be it oral or written to accomplish, she would either sweat profusely without uttering a word, or fill her answer sheets with gibberish scribbling and disjointed letters of the alphabet. Amazingly, neither she nor anyone else could decipher such writings. This was quite worrisome, because it was suggestive of a case of a child being ravished by learning disabilities, or obvious inability to find meaning in what goes on in school, thus poor perception of school environment. One was then left wondering as to how many of such cases abound in the Nigerian school system.

A major goal of schooling is the attainment of academic skills. Traditionally, schooling has focused almost exclusively on improving students' skills in reading, writing, and Mathematics (Hymel, Schonert-Reichl & Miller, 2006). This emphasis is not surprising, as academic achievement is important to future outcomes. Pre-schoolers' knowledge of numbers is a strong predictor of learning more advanced mathematical skills and knowledge of letters and word sounds consistently predicts reading achievement in elementary school (Duncan, Dowsett, Claessens, Magnuson, Huston & Klebanov, 2007). Students' potential to succeed after secondary school is based largely in part on their academic achievement. Students' grade point average (GPA) in secondary school is a strong predictor of post-

secondary grades and completion, which is then predictive of job attainment and performance (Kuncel, Crede & Thomas, 2005).

Additionally, academic achievement is related to a number of important behavioural and social outcomes for students. As early as kindergarten, the relation between problem behaviour and academic achievement is evident. Students who enter school with reading skill deficits are more likely to engage in problem behaviour at the end of elementary school (McIntosh, Chard, Boland &Horner, 2006). In a longitudinal study examining the relation between behaviour and academic achievement in an urban middle school, the number of office discipline referrals (ODRs) students received was predictive of their scores on standardized tests of Mathematics and reading; students receiving higher levels of ODRs had decreased achievement (Lassen, Steele & Sailor, 2006).

Conversely, when students have academic skill deficits that do not respond to classroom instruction, the experience of failure may lead to behaviours such as aggression, classroom disruption, depression, and negative self-attribution (McIntosh, Horner, Chard, Dickey & Braun, 2008). Students with poor academic standing are also more likely to engage in violence and substance abuse during adolescence (Fleming, Harachi, Cortes, Abbott & Catalano, 2004) and are at greater risk of developing symptoms of depression during adolescence (Herman, Lambert, Reinke & Ialongo, 2008). Additionally, poor academic achievement is a strong predictor of school dropout (McIntosh, Flannery, Sugai, Braun & Cochrane, 2008).

For students who struggle academically, there are a variety of behavioural and environmental factors that may affect their learning, such as attention problems, social skills deficits, difficulties working independently, chronic absenteeism,

bullying and victimization, low socioeconomic status, poor or inconsistent parenting, and parental absence (Duncan et al., 2007; Edwards, Mumford, & Serra-Roldan, 2007; Glew, Fan, Katon, Rivara & Kernic, 2005). School related factors that may affect student learning include the amount of academic engaged time provided and teachers' classroom management skills (Gettinger & Ball, 2008). In the light of these factors, it is essential to identify variables within the school environment that can be modified to enhance student academic achievement.

Students' perceptions of their school environment are important to their overall academic achievement. Effective educational practices expand far beyond the curriculum taught in the classroom; attention to establishing a safe, predictable environment and sound instruction in social behaviour are important predictors of students' academic achievement.

Individuals' self-perceptions are often instilled in one before one has a say in them. Learning to change how students see themselves helps them find their hidden strengths, or improve weaknesses they did not know they had and get along better in life. Accurate self-perception is a necessary component of self-improvement. If one fails to know where his or her strengths or weaknesses lie, such a person will not know what areas to work on. Self-perception is also simply being aware of who oneis, what one is like, and what one is capable of. Self-perception goes beyond positive self-esteem, though. It may involve acknowledging shortcoming, adjusting how one views skills, or recognizes the problem areas. Adjusting self-perception entails honesty. Recognizing weak points helps in identifying when help should be sought for. Acknowledging strengths can aid in asserting oneself even when one

feels otherwise. Adequate utilisation of this knowledge is adifferent challenge. The puzzle is how to adjust when one's perception does not line up with reality.

Educators especially learning psychologists like Thorndike, Skinner, and Isangedighi are very much aware that such learner characteristics as perception, conditions as learning disabilities, interest and ability do seriously moderate the child's learning and adjustment in school. By implication, teachers who desire to help children learn maximally in school, need records of their test outcomes beyond test scores in the learning of school subjects. Such records would inform them of the type of intervention to effect for the growth of learners. In Nigeria in general and Akwa Ibom State in particular, the apparent absence of deliberate government policy or directive for schools to routinely administer tests and examinations beyond assessment of learning, could be disturbing to informed educational psychologists. This poor self and school environment perception may be as a result of difficulty in one area of learning or the other due to learning disabilities.

Learning disability is defined as a heterogeneous range of disorders manifested by significant difficulties in the acquisition and use of listening, speaking, reading writing, reasoning or mathematical abilities (National Joint Council on Learning Disabilities, 2005). A learner with a learning disability may demonstrate significant difference between achievement and ability, have average or above average ability or have processing difficulties (Lerner &Steinberg, 2004). One may experience significant reading problems (dyslexia) while another may experience no reading problems whatsoever, but has significant difficulties with written expression (dysgraphia), or with mathematical processes (dyscalculia) or manipulative skills (dyspraxia) or two or more of these.

all the environmental and personal factors in interaction. The personal factors may include home background and hereditary factors which may result in abnormal brain structure or functioning. Environmental factors may comprise nutrition, library facilities in school and psychological stimulation. Where these factors impact positively, an individual seems to display appreciable learning abilities. Whereas, when the reverse is the case, one may exhibit learning disabilities.

This buttresses the supposition in this work that the dynamic interacting interdependent factor of an individual on his environment influences one's learning. It accounts for many causes of learning disabilities in an individual. That is, if a child lives in an environment that is psychologically very unhealthy, there is likelihood that his life will be characterized by one form of instability. Such a learner may manifest signs of learning disabilities. This confirms Isangedighi's (2007) stance that even though learning disabilities can emanate from differences in brain structure and functioning, these variations are linked with some genetic and environmental factors like poor maternal nutrition, illness, which can result in reduced birth weight of the child and possible brain damage.

The complexity of the human brain as an incredible network of information processing and interpretation means that any slight alteration by injury, accident, illness at birth, infancy or childhood may affect learning adversely. Also, an impoverished environment lacking in appropriate language and sensory stimulation could impact a child's learning negatively. This theoretical base provides the anchorage for the supposition that learning disabilities dispose learners towards poor perception of school physical and social environment and even classroom instruction.

1.2.2 Cognitive learning theory by Max Wertheimer (1942)

Max Wertheimer, a German psychologist propounded the Cognitive learning theory in 1942. The conceptual framework describes how information is absorbed processed and retained during learning through mental processes like recognition, recollection, analysis, reflection, application, creation, understanding and evaluation. To the cognitivists, the word 'learn' connotes 'thinking using the brain'. This is the main view point of the theory.

Learning disabilities are rooted in neurological dysfunction and casually correlated with basic psychological process. It is also traceable to minimum brain destruction and dysfunction of the central nervous system due to neurological development lag. This may manifest in clumsiness, inattention, and hyperactivity. Since learning is a mental process influenced by intrinsic and extrinsic factors a relative influence of brain damage can account for ineffective cognitive process evidenced during learning. The crux of the Cognitive learning theory is that an individual with an ineffective cognitive process will be adversely affected academically. This will undermine the pupils' perception in school as supposed by this study.

1.2.3 Carl Rogers' theory of personality (1959)

Carl Rogers propounded the theory of personality in I959. The focus was on the growth potential of healthy individuals. He emphasized on the active role of the individual in shaping their internal and external worlds. Rogers advanced this theory by stressing that the human person is an active, creative, experiencing being

who lives in the present and subjectively responds to current perceptions, relationships, and encounters.

Rogers believed that everyone finds himself at the centre of a constantly changing world of experiences. A person reacts to changes in their phenomenal field, which includes external objects and people as well as internal thoughts and emotions. If a person has a positive self-perception, he tends to feel good about who he is and often sees the world as a safe and positive place. If he has a negative self-perception, he may feel unhappy with who he is.

The implication of this theory to this work is that pupils with learning disabilities may have negative self-perception due to consistent negative experiences caused by the disabilities. The impact of this is that pupils' difficulties in basic academic skills are often directly related to their beliefs that they cannot read, write, handle numbers, or think well. However, such beliefs are not objectively true (National Joint Committee on Learning Disabilities, 2005). That is to say, many pupils with learning disabilities have difficulty in school not because they are incapable of performing successfully in all areas but because they are incapable of believing that they can perform successfully outside their area of academic difficulty (for example dysgraphia- significant difficulties with written expression). They have learned to see themselves as incapable of handling academic work or to see the work as irrelevant to their life. This theory supports the fact that learning disabilities disposes the pupils towards poor perception in school.

1 3 Statement of the problem

Emerging international treaties such as Education for All (EFA), Sustainable Development Goals (SDGs) and other United Nations Educational Scientific and Cultural Organisation (UNESCO) manifestoes have propelled global education towards achieving a set of important education priorities. Nigeria is at the forefront mobilizing synergetic efforts to timely meet the respective targets. This commitment has led to expanding primary enrolments of pupils and adopting inclusive education practice to equalize educational opportunities for all children as enshrined in the National Policy on Education, 2008. Consequently, all categories of learners are welcome in the Universal Basic Education classroom. The big question is how can this group of learners be identified and helped to cope in the conventional classroom?

Teachers being almost inadequately prepared for such classroom diversity are not conversant with the variations of these pupils' abilities for maximal learning. The perception of these children towards self, academic work and the school environment generally affects their learning. These learners' inability to make it academically may get them terribly dismayed. Some may drop out of school while others indulge in unwholesome behaviours. Teachers have often been frustrated due to the discrepancies between such learners' potentials and their actual achievement upon consistent instruction. The issue of such category of children not meeting expectation consistently has raised alarming concerns among stakeholders in education. Parents, government and the larger society are affected adversely.

It is in response to these manifestations of disappointment from parents, frustration from teachers, distraught from the pupils and curiosity from other

stakeholders that the researcher is motivated to find out the type of learning disabilities and pupils' perception of self and school environment that characterize primary school learners in Akwa Ibom State, Nigeria. The problem of the study can be conceptualized in the following questions: What is the type of learning disabilities and perception of self and school environment that characterize primary school pupils in Akwa Ibom State, Nigeria? What are the types of relationship existing between learning disabilities and perception of self and school environment among primary school pupils in Akwa Ibom State, Nigeria?

1.4 Purpose of the study

The purpose of this study was twofold. One was to delineate the types of learning disabilities and perception of self and school environment that characterize primary school children in Akwa Ibom State, Nigeria. The second was to explore if a relationship exists between learning disabilities and the pupils' perception of self and school environment. In specific terms, the study was aimed at determining:

1. The prevalence of learning disabilities among primary school pupils' in Akwa Ibom State.
2. The healthiness of primary school pupils' perception in context of self perception and perceptions of school environment.
3. The type of relationship existing between learning disabilities and pupils' self perception.
4. The type of relationship existing between learning disabilities and pupils' perception of school physical environment.

5. The type of relationship that exists between pupils' learning disabilities and their perception of school social environment.
6. The type of relationship that exists between pupils' learning disabilities and their perception of classroom instruction.

1.5 Research questions

The following research questions were answered in the study.

1. What types of learning disabilities are prevalent among primary school pupils in Akwa Ibom State?
2. What proportions of primary school pupils in Akwa Ibom State have healthy perceptions of themselves and their school environment?
3. To what extent do learning disabilities relate with pupils' self perception in Akwa Ibom State?
4. To what extent do learning disabilities relate with pupils' perceptions of their school physical environment in Akwa Ibom State?
5. In what ways do learning disabilities relate with pupils' perceptions of their school social environments in Akwa Ibom State?
6. In what ways do learning disabilities relate with pupils' perception of their classroom instruction in Akwa Ibom State?

1.6 Statements of hypotheses

The following null hypotheses were formulated for the study:

1. Learning disabilities do not significantly predict primary school pupils' perception of self in Akwa Ibom State.

2. Learning disabilities do not significantly predict primary school pupils' perceptions of their school physical environments in Akwa Ibom State.
3. Learning disabilities do not significantly predict primary school pupils' perceptions of their school social environments in Akwa Ibom State.
4. Learning disabilities do not significantly predict primary school pupils' perceptions of their classroom instruction in Akwa Ibom State.

1.7 Significance of the study

This study might be of benefits to curriculum planners, measurement or evaluation experts, policy makers, school administrators, counsellors, Educational psychologists, teachers, students, parents, researchers and government.

The findings can help curriculum planners and measurement or evaluation experts to design curriculum that will cover the domains of educational objectives. That is, cognitive, affective and psychomotor domains. It would also highlight the importance of directing that tests and examinations in schools go beyond the routine practice of administering test for assessment of learning only. A review of a learners' developmental, medical, educational, family history records, report of test scores, teacher observations, responses to academic interventions and personal characteristics as ability, perception and learning disabilities will help direct, solve or remediate learners' academic issues on time.

From the findings, policy makers would have to promulgate laws on the significance of keeping learner's psychological testing records in schools as well as enforcing accurate utilization of such records. The study would enable school administrators to take balanced decisions concerning learners by considering

positively on their self perception. This positive effect will invariably spiral into all domains of the children's lives like academic, emotional, social, psychological well being.

For the government, her goal of providing education for all by the year 2020 in Nigeria could be achievable when a generalized body of scientific and clinical knowledge about learners' uniqueness in areas like learning disabilities, perceptions are painstakingly kept and judiciously utilized in solving learners problems. Also, there is need for reliable and valid diagnostic criteria to be put in place. More researches could be sponsored in these areas.

1.8 Assumptions of the study

The research was carried out based on the assumptions that:

1. Every learner has one form of learning disabilities or the other but the variation is in the level and quantum or type.
2. Learning disabilities are measureable.
3. Learning disabilities vary among learners.
4. Perception differs among learners.

1.9 Scope of the study

The study was delimited to Akwa Ibom State. Therefore, any generalization should be in context of that State. The subject was delimited to primary five pupils in public primary schools. This is so because majority of the pupils leave for secondary school at this level. They do not stay to do primary six. Learning disability variables were delimited to dyslexia, dysgraphia, dyscalculia and

dyspraxia because they are the most commonly manifested learning disabilities among children in the school system. Perception is delimited to – perception of self which is delimited to academic self, physical self, social self and moral self. On the other hand perception of school environment is delimited to perception of school physical environment covering landscape, infrastructure, equipments and facilities and perception of school social environment covering: pupil – pupil relationship, pupil – teacher relationship, tone of school discipline, co- curricular activities and classroom instruction.

1.10 **Limitation of the study**

The dearth of relevant and adequate empirical materials for literature review especially from the home front somehow posed as a limitation to the study.

1.11 **Definitions of terms**

These refer to variables used in this study

1. Learning disabilities consist of a spectrum of disorders. Those used in the work include:
2. Dyslexia: A disorder of children with consistent reading difficulty despite consistent instruction.
3. Dysgraphia: A disorder of handwriting.
4. Dyscalculia: A disorder which manifest in an inability to calculate or do mathematical reasoning.
5. Dyspraxia: A dysfunction in fine motor control and poor manual dexterity.

6. Perception: This is one's unique interpretation of events in one's environment. The types referred to in the work are:
7. Self-perception: How a learner views himself academically, physically, socially and morally. It shapes the quality of what is learnt.
8. Perception of school physical environment: This is the way a learner views his school physical environment like the landscape, infrastructure, equipment and facilities.
9. Perception of school social environment: This is the impression and inferences a learner draws from pupil-pupil relationship, pupil-teacher relationship, tone of school discipline and co- curricular activities.
10. Perception of classroom instruction: This is the way a child views classroom practices with respect to how those practices are meeting his learning needs.

2003). Although learning disabilities may occur concomitantly with other handicapping conditions or with extrinsic influence, they are not the direct result of those conditions or influences. In these definitions there tend to be a general agreement that these children demonstrate a significant difference between achievement and ability, demonstrate below average academic achievement, have average or above average ability (thinking and reasoning), and have processing difficulties (Lerner, 2004).

These definitions also reveal that learning disability is not a single disorder, but is a general category of special education composed of disabilities in any of seven specific areas: (1) receptive language (listening), (2) expressive language (speaking), (3) basic reading skills, (4) reading comprehension, (5) written expression, (6) mathematical calculation, and (7) mathematical reasoning. These separate types of learning disabilities frequently co-occur with one another and also with certain social skill deficits and emotional or behavioural disorders such as attention deficit disorder.

Dyslexia (Reading deficits) is the term associated with specific learning disabilities in reading. Although features of LD in reading vary from person to person, common characteristics include: difficulty with phonemic awareness (the ability to notice, think about and work with individual sounds in words) phonological processing (detecting and discriminating differences in phonemes or speech sounds) difficulties with word decoding, fluency, rate of reading, rhyming, spelling, vocabulary, comprehension and written expression. Reading difficulties are observed among students with learning disabilities more than any other problem area of academic performance. It is the most prevalent type of academic difficulty

for students with learning disabilities. It is estimated that as many as 70% of students with learning disabilities have reading difficulties, and even the low estimates are approximately 60% (Brendtro, 2001).

Dysgraphia(Handwriting disorder) is the term associated with specific learning disabilities in writing. It is used to capture both the physical act of writing and the quality of written expression. Many individuals with LD exhibit deficits in written language (Hallahan, Kauffman, & Lloyd, 2004). Learning disabilities in the area of written expression are beginning to receive more recognition as a serious problem (Smith et al., 2004). Writing is a highly complex method of expression involving the integration of eye–hand, linguistic, and conceptual abilities. As a result, it is usually the last skill children master. Whereas reading is usually considered the receptive form of a graphic symbol system, writing is considered the expressive form of that system. The primary concern in the assessment of composition skills is the content of the student's writing, not its form. Features of learning disabilities in writing are often seen in individuals who struggle with dyslexia and dyscalculia, and will vary from person to person and at different ages and stages of development. Common characteristics include: tight, awkward pencil grip and body position tiring quickly while writing, and avoiding writing or drawing tasks, trouble forming letter shapes as well as inconsistent spacing between letters or words difficulty writing or drawing on a line or within margins, trouble organizing thoughts on paper, trouble keeping track of thoughts already written down, difficulty with syntax structure and grammar, large gap between written ideas and understanding demonstrated through speech.

Dyscalculia(Arithmetic disorder) is the term associated with specific learning disabilities in mathematics. Arithmetic involves recognizing numbers and symbols, memorizing facts, aligning numbers, and understanding abstract concepts such as place, time, value and fractions. Although features of LD in mathematics vary from person to person, common characteristics include: difficulty with counting, learning number facts and doing math calculations, difficulty with measurement, telling time, counting money and estimating number quantities, trouble with mental math and problem-solving strategies. Although disorders of reading have traditionally received more emphasis than problems with mathematics, the latter are gaining a great deal of attention (Hunt & Marshall, 2005). Authorities now recognize that math difficulties are second only to reading disabilities as an academic problem area for students with LD (Hallahan & Kauffman, 2003). Researchers estimate that about one out of every four pupils with LD receives assistance because of difficulties with mathematics (Rivera, 2007). Mathematics disorders are typically diagnosed in the first few years of elementary school when formal teaching of numbers and basic mathematics concepts begin. According to Lerner (2003), each student with mathematical difficulties is unique; not all children exhibit the same deficiency or impairment.

Dyspraxia(Fine motor deficit) is a common disorder of childhood. It is estimated to be present in about six percent (6%) of school age children between ages 5 and 11 (Igwue & Ashami, 2013). Children with this disorder have associated problems including difficulty in processing visuo-spatial information needed to guide their motor actions. They may not be able to recall or plan complex motor activities such as dancing, doing gymnastics, catching or throwing a ball with

accuracy and producing fluent legible handwriting. It becomes apparent in early childhood as a difficulty in learning or carrying out skills that require motor coordination. These can range from walking and balance problem to difficulty in picking up a pencil to write as well as using chalkboard. This condition affects a child's performance of everyday tasks in the home, play and school environments. Often, these children are described as clumsy or forgetful. For example, they may never turn the water faucet (water valve) or lights off. These children may have difficulty using a cup, spoon or fork to eat. They may have the tendency to drop items or run into walls or furniture and have frequent accidents.

Budar (2007) states that learning disabilities may also be present along with other disabilities such as mobility and sensory impairments, brain injuries, attention deficit disorder/attention-deficit hyperactivity disorder (ADD/ADHD), and psychiatric disabilities. This gives learning disabilities a wide range of characteristics which often present difficulty to teachers. Common characteristics of these children reveal that they demonstrate poor functioning in many areas but not limited to auditory perception and processing, emotional liability, academic difficulties, coordination problems, visual perception and processing, information processing speed, reading difficulties, abstract reasoning, long-term and short-term memory, spoken and written language, mathematical calculation and executive functioning (planning and time management) skills during formal years of schooling. According to Gargiulo (2004), not all pupils with learning disabilities will exhibit these characteristics, and many pupils who demonstrate these same behaviours are quite successful in the classroom. As Smith (2009) observes, it is the

quantity, intensity, and duration of the behaviours that lead to the problems in school and in the community.

There are some agreements about the general concepts of learning disabilities (LD) and there is also continued disagreement in the field about diagnostic criteria, assessment practices, treatment procedures and educational policies for learning disabilities. A number of influences have contributed to these disagreements which, in turn, have made it difficult to build a generalized body of scientific and clinical knowledge about learning disabilities and to establish reliable and valid diagnostic criteria. While some progress has been made during the past decade in establishing more precise definitions and a theoretically based classification system for LD, there is need to examine few definitions.

Individuals with Disabilities Education Act (2004) states that Specific learning disability means a disorder in one or more basic psychological processes involved in understanding or in using language, spoken or written, that may manifest itself in an imperfect ability to listen, speak, read, write, spell, or to do mathematical calculations. The term includes such conditions as perceptual disabilities, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia. The term does not apply to children who have learning problems that are primarily the result of visual, hearing, or motor disabilities, of mental retardation, of emotional disturbance, or of environmental, cultural, or economic disadvantage (US Department of Education, 2008). Also, Revised in 2013, the current version of Diagnostic and Statistical Manual of Mental Disorders (DSM) published by the American Psychiatric Association broadens the previous definition to reflect the latest scientific understanding of the condition.

The diagnosis requires persistent difficulties in reading, writing, arithmetic, or mathematical reasoning skills during formal years of schooling. Symptoms may include inaccurate or slow and effortful reading, poor written expression that lacks clarity, difficulties remembering number facts, or inaccurate mathematical reasoning. Current academic skills must be well below the average range of scores in culturally and linguistically appropriate tests of reading, writing, or mathematics. The individual's difficulties must not be better explained by developmental, neurological, sensory (vision or hearing), or motor disorders and must significantly interfere with academic achievement, occupational performance, or activities of daily living. Specific learning disorder is diagnosed through a clinical review of the individual's developmental, medical, educational, and family history, reports of test scores and teacher observations, and response to academic interventions (American Psychiatric Association, 2013).

Perception on the other hand, refers to an individual's interpretation of events and objects in his environment (Isangedighi, 2011; Nnachi, 2003; Wikipedia 2015). Perception shapes the quality of what is learnt. It is central to learning. How a learner perceives himself academically, physically, socially, morally; the physical school environment (landscape, infrastructure, equipments and facilities); social school environment (pupil- teacher relationship, pupil- pupil relationship, routine school activities, co- curricular activities); tone of school discipline (school rules and regulation) and classroom instruction have a tremendous impact (positive or negative) on what he is learning.

For instance the primary school period is the time when children are rapidly gaining knowledge of who they are physically and cognitively. Self-perception

refers to a subjective concept of one's physical appearance based on self-observation and the reaction of others. Self-perception is a multifaceted construct composed of the perceptions, thoughts, and feelings that pupils with learning disabilities hold about their bodily structure. It also summarizes the disorders associated with body image deficits. It involves a self-perception that consists of both perceptual experience and subjective evaluation, based in part on the reactions of others (Silverman & Zigman, 2003). Self-perception is the mental image pupils with learning disabilities have of the size, shape and contour of their own bodies as well as of feelings about these characteristics and the parts that constitute their bodies. It is defined as the way a person perceives or thinks about his body and how it appears to others.

2.2 **Prevalence of learning disabilities**

According to the National Association of Special Education Teachers (2013), approximately 5 to 10% of all public school pupils in Nigeria are identified as having a learning disability in the Universal Basic Education classroom though estimate of the prevalence vary according to the definition and diagnostic criteria used in identifying them. The efforts and successes of inclusion policies like Education For All (EFA), Millennium Development Goals (MDGs) and Sustainable Development Goals (SDGs) have resulted in increased number of learners with learning disabilities in Nigerian schools and classrooms (Obani, 2006).

In a study tagged 'Prevalence of Specific Learning Disabilities and its management among pupils in Calabar Educational Zone, Cross River State', Orim

and Uko (2017) set out to assess the frequentness of Specific Learning Disabilities and its management among pupils in Calabar Education Zone. The findings portrayed eight sub types of specific learning disabilities common among pupils in the sampled schools. The following disabilities ranked the highest: dyslexia 26%, dyscalculia18%, dysgraphia16%, dyspraxia 15%. The teachers' managing ability rated 35% poor and 31% fair respectively. These findings call for teachers' capacity building to enable them meet the instructional needs of pupils with disabilities professionally.

In 2015, 100 pupils in Calabar Metropolis were screened by the Department of Special Education, University of Calabar. The result ranked 25%dyscalculia, 35%dyslexia, 15%dysgraphia, 10%dyspraxia and others 8% and 7% respectively. Globally, the picture is not as alarming. In India, the prevalence of dyslexia is 12.5% for dysgraphia, 11.2% for dyscalculia 10.5% and 15.17% for others among sampled pupils (Mogasale and Patial, 2012). In Canada, Learning Disabilities Association of Canada (2012) shows that between 2001- 2006 there has been a fast increase in disability. In Czech Republic, learners aged 5 – 7 years are at risk or have LD (Bendova & Pelrikova, 2015). Prevalence by gender is 1 girl to 3 boys or 60% of male to 40% of female.

Learning disabilities may be mild, moderate or severe. Learners differ in their coping skills too. Some may adjust to LD so well that they "pass" as not having a disability while others struggle throughout their life to even do simple things (Bowe, 2005). The inability of some pupils to learn the letters of the alphabet, carry out simple mathematical operations, write eligibly and carry out simple motor activities as tangible as picking up crayons to trace letters of the

alphabet (Makode & Ayim, 2008) in spite of pedagogical efforts of the teachers are indicators of possible learning disabilities.

In Nigeria, there is the challenge of getting reliable data due to the heterogeneity of the disability, lack of operational definition, identification and assessment criteria. The studies reported above in the various countries, despite the variations in figures create an awareness of the prevalence of LDs in our classrooms, give room for further research and provide rationale for planning and provision of appropriate services to help learners' maximize their potentials.

2.3 **Healthiness of pupils' perceptions**

Perception is considered healthy when it provides psycho-emotional impetus for learning and perseverance to attain academic heights regardless of psychological, behavioural, emotional and cognitive deficits. In this work perception covers pupil's perception of self (academic, physical, social, and moral); school physical environment (landscape, infrastructure, facilities, equipment) and school social environment (pupil- teacher relationship, pupil-pupil relationship, tone of discipline, co curricular activities).

Literacy is a valued skill and perceptions of incompetence in acquiring the necessary skills associated with literacy could have a negative effect upon the child's self-concept and self-worth. Therefore, a particular difficulty in either reading comprehension or decoding, that is, essential reading skills, could potentially have significant effects on the self-perception of children with learning disabilities. As a child with learning disabilities develops, he or she becomes aware of others' achievements and make comparisons between his or her own abilities and

those of others, which will in turn shape his or her feelings of well-being and how the child perceives his academic competence in relation to others. Enhancing a healthy perception could be considered an important goal of education since research has shown the impact it can have upon educational aspirations, academic achievement and behaviour of children with various types of learning disabilities (Craven, Marsh, & Burnett, 2003; Mujis,2007).

The implications for the practice of educational psychologists and other educational professionals are twofold. If the recognition of perception of these children is potentially negative, the role of educational psychologists could be to make teachers' aware of children who have learning disabilities and work with them to use preventative strategies so that this group of children does not become disaffected or demotivated. Secondly, if the aforementioned difficulties experienced by these children affect their perceptions of ability to learn, then educational psychologists could help facilitate interventions to enhance positive self-perception of these learners in respect to their academic performance in the specific area of need.

Swanson (2009) found that for students with LD, their perceptions of themselves as good learners were associated with perceptions of working hard and implementing strategies in their academic work. Although there has been little research investigating the relationship between controllability attributions and academic self-perceptions, the findings indicated that many children with LD attributed their successes and failures to factors outside of their control. Some evidence revealed that those who had an internal locus of control made better academic progress. Those with negative academic self-perceptions viewed

themselves as poor students who were unwilling to work hard. Thus, differences in academic self-perception significantly predicted their self-perceptions about working extremely hard in challenging academic areas, which often demand sustained and intensive effort. Positive academic self-perception may be related to belief in the ability to perform the task and to hope for success in learning.

Palombo (2001) also noted that it is important for teachers and parents to affect the self-concept and self-perception of pupils with LD by remaining positive and encouraging them to succeed. This is evident as Biggs (2007) showed that there was a discrepancy between self-assessments of students with LD and their teachers' judgments. They found that pupils with learning disabilities perceived themselves to be less capable than their teachers judged them. Furthermore, Moller (2009) indicated that teachers were commonly unaware of students' perceptions of abilities thus, increasing cases of learned helplessness in the class on daily basis. For better communication between teachers and pupils with learning disabilities, it is beneficial for teachers to spend time with students to discuss their perceived strengths and weaknesses, and encouraging and instilling self-confidence as well as hope of scholarship in them.

Biggs (2007) reported that when parents and teachers were positively involved in the lives of their children, the academic self-perception of their children was affected in a positive way creating more room for academic excellence. If pupils with learning disabilities are accurate at judging their own abilities, then self-perception would have no role as a 'market failure' in the acquisition of education and skills. However, individuals exhibit bounded-rationality concerning educational decisions if they are poor at predicting their own performance.

Further evidence suggested that these differences in self-perception have important consequences. Marsh (2005) use longitudinal data to show that pupils with learning disabilities who are better at assessing themselves allocate their study time more efficiently, committing more time to remediate their academic difficulties and have better academic outcomes. Academic Self-perception represents the judgment of their abilities, providing a description of the individual's own perceived self, accompanied by an evaluative judgment of self-worth based on their achievement or failures. When individuals tap into their self-perception, they arrive at different conclusions based on their views which might be erroneous. Positive academic self-perception may give them confidence in their ability to accomplish more of the task.

Students feel differently about themselves and cope differently with challenges depending on what they believe they are capable of, and what they hope they will be able to achieve (Folkman & Moskowitz, 2004). Researchers have identified the central role of experiences of competence versus incompetence in the development of self-perception (Bong & Skaalvik, 2003), as beliefs and perceptions about self are rooted in one's past achievement, difficulties and academic history, emotional experiences and social self efficacy. Negative perception may result in learned helplessness. Basically, negative perception creates three basic deficits in the child with learning disabilities-cognitive, emotional, and motivational-which destroy the child's desire to learn. The motivational deficit stops learning by aborting the child's initiation of responses. Too often teachers assert that the child is not trying, but research shows that these children have learned to be helpless to learn. It is not a moral choice.

Folkman and Moskowitz (2004) researching on the effect of negative perception of children with learning disabilities stated that deficits in three interrelated areas are significant aftermath of negative perception: motivational, cognitive and emotional. The motivational deficits consist of retarded initiation of voluntary responses. It reduces the motivation to control the outcome. It generates expectation that responding is an exercise in futility. In cognitive deficits, the child with LD feels difficult to learn the responses that produce outcomes. In fact, it interferes with learning that responding controls the outcomes. Thirdly, the emotional deficits, a depressed affect are observed when the individual learns that there is no contingency between response and outcome.

Diener and Dweck (2008) in their study asserted that dyscalculic pupils behave during mathematics lessons as if they believe they are powerless to influence the outcomes of their learning. They do not make much effort to learn, do not persist when mathematics tasks become difficult, and often refuse to try, avoid work wherever possible, engage in a variety of off-task behaviours, respond badly to failure, or simply give up. When presented with new or different mathematics tasks or problems, disaffected students are likely to complain that they are too hard or they cannot do them, even before they have attempted to do so. These pupils have learned to be helpless (Nunez, 2005) and believe that the subject matter is beyond them, a belief more commonly espoused by girls than boys (Folkman & Moskowitz, 2004; Marsh, 2005). While pupils with learning disabilities exhibiting negative perception are likely to be found in almost all classrooms, very little research has been directed towards how it results from negative academic self-perception of learning disabled with the disposition to exhibit this characteristic in

mathematics. Pupils with mathematics or reading difficulty often resort to helplessness which is characterized by student passivity resulting from changes in cognition and emotion, a loss of motivation, and a reduction in behavioural agency (Gent & Monaco, 2003). Among the changes in child's cognition due to negative academic self-perception is the perception of non-contingency or belief that important outcomes are uncontrollable. By contrast, students who are mastery oriented tend to believe that success is determined by effort and are motivated, display more positive attitudes towards learning, use more effective learning and study strategies, and prefer challenging assignments (Diener & Dweck, 2008).

Unhealthy perception is likely to occur in mathematics by dyscalculic pupils (Diener & Dweck, 2008), because it is an area of the curriculum in which success and failure are highly salient and more obvious. Furthermore, many students believe that mathematical ability is inherited and that learning mathematics is related to ability rather than effort (Bong & Skaalvik, 2003). In Western societies mathematics is often considered to be a subject only for the very able. Students will often explain away their failure in mathematics by saying their parents were no good at Mathematics when they were at school (McLeod, 1992). These beliefs have detrimental effects on students' behaviours, particularly when they are confronted with problems for which there are no simple or quick solutions. The net result of these negative perceptions is that when students encounter difficulties in learning mathematics, many attribute their failure to their lack of mathematical ability and consequently decrease their efforts, engage in a variety of work avoidance strategies, or simply give up trying and opt out altogether. In response to repeated failure, students exhibit characteristically passive learned helplessness behaviours in

the classroom consequent upon their negative academic self-perception and reduce their participation in the activities and lessons provided by the teachers. This in turn interacts with their lower achievement, to create a vicious cycle of failure. Perceptions of success and failure in the mathematics classroom affect both teachers and students alike (Brookhart, 2004). For many dyscalculic pupils, how they perceive the causes of their failures like in Mathematics invariably affects their attitudes towards mathematics (Spanais, 2009).

Most studies of causal explanations have relied on student self-report measures of their internal states, but in classroom contexts it is likely that negative academic self-perception can be observed readily through the way in which students respond to situations of conceivable or actual failure. Teachers are therefore in a good position to assess at least some of the recognized dimensions of negative academic self-perception as they surface in classroom life. Negative academic self-perception is a learned behaviour that is amenable to change. Teachers are to identify students exhibiting this debilitating characteristic in mathematics, reading and writing classroom as well as in social activities, particularly at the primary school level before such negative behaviours become entrenched (Brookhart, 2004).

2.4 Learning disabilities and self-perception

Human beings have been overly concerned about their outward appearances and have held the belief that, somehow, the characteristics of the physique were reflections of the inner self. The philosophy of mind and body being two interconnected parts of the human unity may have inadvertently generated the notion of intimate interdependence of physique and personality.

Heyman (1990) in her empirical studies on "Disability and its relationship to academic self concept and self esteem" worked on 87 children with learning disabilities aged 9 – 11 years 11 months. The Self-Perception of Learning Disability (SPLD) instrument was used to measure the extent to which children with learning disabilities perceive their disability as (a) delimited rather than global, (b) modifiable rather than permanently limiting and (c) not stigmatizing. Using Pearson Correlation between the SPLD and Coppersmith Self Esteem Inventory, School Short Form, Form B (CSEI-SF) the findings confirm the hypothesized relationship between self perception of the learning disabled and academic self concept and self esteem. Self perception of the learning disabled explained 12% of the variability in self concept and above 30% of that in academic self concept.

Another study on 'self perception of the learning difficulties of elementary school students' by Moreira, Martins-Reis and Santos (2016) verified the self perception of reading and writing difficulties of 65 (39 females and 26 males) elementary school students from the 4th to the 7th grade. The school Program test was used. Three quarters had a positive self perception of their performance in reading and writing. The result revealed a relationship between students' self perception and low performance in reading and writing test. Those with better performance perceived themselves better. However, reading and writing test showed a high percentage of students with lower performance than the self perception indicated. This implies that educators/teachers should be alert to signs of difficulties even before the children complain.

Though learning disabilities may not have physical evidence and it is not a disability that may obviously impair the physiological functioning of the body but

when it concomitantly occurs with any physiological deformity, it becomes a source of worries to children with LD due to the societal derogation attached to bodily deviations. In our society physical appearance on motor functioning are highly valued and are important factors in determining the popularity of children. When learning disabilities co-occur with any physiological abnormality it results to what is called twice exceptionality. Twice exceptionality is a combination of physical disability and learning disabilities with its combined effects. Twice exceptionality of children with learning disabilities results to more psychological and emotional complexities as well as doubles social and educational deficits. Twice exceptional children with learning disabilities, if they accept these values, may be condemning themselves to low self esteem. The same would also be true for children whose learning disability has typical and distinctive characteristics as for example in the case of clumsiness. Researchers have however consistently found that twice exceptional children with learning disabilities have lower levels of self esteem and self worth than their typically developing peers, negative self image resulting in low motivation and aspiration (King, 2006). They grow up being unable to carry out social activities because of what the disability offers, their outlook towards life changes. In other words, successes and other pleasurable events in life lead to the enhancement of self concept while failure, frustration and other denigrating experiences tend to lower the concept of one self.

Self-perception being a combination of an individual's psychosocial adjustment experiences, feelings and attitudes that relate to the form, function, appearances and desirability of one's own body which is influenced by individual and environmental factors. The social and educational life of twice exceptional

children with learning disabilities becomes a source of worries to parents and teachers when it begin to affect the child's affective and cognitive functions as a result of social cues from the environment (Horgan & MacLachlan 2004). Twice exceptionality of children with learning disabilities may be such that result in disfigurement and may lead to a negative body image and potential loss of social acceptance (Jacobsen 2007). Meanwhile, relationship between disability experience and stigma is not uni-dimensional, this means that they are interwoven and inter-dependent. Also, children with a combination of learning and physical disabilities perceive themselves as unfit for the society anymore due to the double stigma of learning difficulty and physical derogation, and people in the school community also may see them as members of stigmatized group. The reason is that, body image not only provides a sense of ''self'', body image also affects how these pupils think, act and relate to others (Wald, 2004)

The attitudes of the school community toward learning disabilities in absence of the existence of physical impairments alone, negatively affect feelings of well being among individuals with learning disabilities; thus, additional physical deformity compounds the case resulting to severe psychological and emotional traumas which may eventually diminish cognitive functioning of the child in the school. These complexities worsen the reading, math, writing and praxis performance level of the children, crumbling the entire life of the child (Green 2007). An addition of physical disability, individuals must adapt to changed physical and social functioning and incorporate these changes into a new sense of self and self identity (Horgan & MacLachlan 2004). Adaptation to one's present new life will liberate the mind from labeling and social stigma. Besides,

stigmatization, segregation and labeling that troubled the life of these twice exceptional children, degenerates their situation to a medical problem such as social physique anxiety and depression, this will go a long way to affect their general well-being. Anxiety, depression and social stigma are three major problems faced by many children with learning disabilities (Green 2007)

Physical disability in concomitant with learning disabilities may have a profound impact on the body image, depending on the type and severity of the disabling condition. For instance, permanent damage to major portions of the body (i.e. paraplegia, quadriplegia, or major limb amputation) is more predictive of body image dissatisfaction than are less severe physical disabilities. The degree to which such twice exceptionality influences body image is also determined by factors such as onset, timing, visibility of the condition, and the cause of the disability. Firstly, disabilities that originate early in life have less impact than those disabilities that arise after childhood. When disability occurs after childhood, individuals have to deal not only with their disabilities, but they must also cope with the loss of their former non stigmatized identity. Secondly, if the disability can be hidden, body image is less likely to be disrupted than if the disability cannot be hidden. Third, believing that the disability was caused by factors under personal control may preclude full acceptance of the disability, especially if the person dwells on their former non stigmatized self and continually engages in counterfactual thinking (e.g. if I hadn't been injured, I would be happier). Twice exceptional individuals' body image are also threatened by the reactions that they receive from non stigmatized peers. Specially, attitudinal research revealed that individuals often hold negative

attitudes toward disability and disfigurement. These attitudes may be displayed overtly or covertly (Horgan & MacLachlan, 2004).

Also, research examining social exchanges between disabled and nondisabled individuals reveals that nondisabled individuals exhibit a number of nervous and avoidant behaviours (e.g. they are more physiologically aroused, terminate the interaction sooner, stand at greater speaking distances and show more behavioural inhibition) when interacting with physically disabled person than a nondisabled person. The case is more aggravated when the child is twice exceptional with deficits in basic psychological processes as experienced in classroom functioning. Such verbal and nonverbal gestures likely have a negative influence on body image. The self-perception that one is being stigmatized may have a negative image on the body image even if the supposed 'stigmatizer' is unaware of the target's stigmatizing condition. This self-fulfilling prophecy shows that the self-perception of being the target of discrimination is an important component of body image (Horgan & MacLachlan, 2004).

According to Silverman and Zigman (2003) physical appearance is an omnipresent feature of self that has important implications for body image throughout the life span. As early as infancy, attractive babies are responded to with more positive attention as unattractive babies. In addition, mothers of attractive babies are more affectionate and play with their babies more than mothers of unattractive babies. This differential treatment of attractive and unattractive individuals continues into preschool and school age years. In the school, teachers rate attractive children as possessing more positive personality traits, having greater academic ability, being more intelligent, more likely to be helped to succeed, and

being more likely to be successful than unattractive children, and such ratings are made solely on the basis of appearance. These differential evaluative reactions may have strong and detrimental impact on the self-esteem and body image of unattractive children. Negative comments from peers, particularly in the form of teasing, are important predictors of body image dissatisfaction. Unattractive pupils are with learning disabilities liked less, are excluded from social activities in the school and are viewed by peers as possessing more negative traits than their more attractive peers.

This social exclusion may promote a self-fulfilling prophecy, in that ostracized pupils with learning disabilities have fewer opportunities to acquire social and academic skills because of their limited social opportunities and in turn, their diminished social and academic skills reinforce peoples' avoidance of them. Anecdotal and clinical evidence suggest that the key to reducing body image dissatisfaction is through increasing self-acceptance. Thus, teachers and significant others in the school and home are to commit effort to ensure that these LD children with negative physical self-perception come to terms with their disabilities and adjust appropriately to ensure effective social, emotional and academic development.

Nigerian society puts a strong emphasis on physical appearance. People who are deemed attractive are often viewed more favorably than unattractive people. They are thought to be smarter, and more commendable than their less attractive peers. This assumption is called the halo effect (Thorndike, 1920); people who are rated highly on one dimension (attractiveness) are assumed to excel on others as well (intelligence). This is also referred to as the "what-is-beautiful-is-good"

stereotype (Solomon, Zaichkowsky, & Polegato, 2005). It appears that many individuals respond by feeling badly about their bodies and themselves, and subsequently they develop a negative body image. Body image is a subjective and multidimensional construct (Cash, Morrow, Hrabosky, & Perry, 2004). It encompasses an individual's self-perceptions and attitudes about his or her physical appearance. The two main aspects of body-image attitudes are evaluation and investment. Evaluation refers to the evaluative thoughts and beliefs that one has about one's body. Body image investment is the cognitive, behavioural, and emotional importance attributed to the body in self-evaluation (Cash & Pruzinsky, 2002).

Scrutinizing one's self in comparison to those who are less attractive positively affects self-perceptions. Conversely, comparing ones' self to those who are more attractive negatively affects self-perceptions. Therefore, to whom one compares oneself is an important determinant of one's level of body image satisfaction. Furthermore, believing oneself to be acceptably attractive may be more adaptive than actually being considered attractive by others. How others perceive the individual's attractiveness appears to be less important for an individual's body esteem than how the individual perceives him- or herself (Noles, Cash & Winstead, 2005). Not only does body image dissatisfaction affect the behaviours of twice exceptional children with learning disabilities, it also affects how one feels about oneself. It is associated with depression, low self-esteem, feelings of shame, body surveillance, diminished academic achievement, self-concept and anxious self-focus and avoidance of body exposure during sexual activity, which can lead to impaired sexual functioning (Cash, Maikkula & Yamamiya, 2004).

Most of the time, this category of pupils in the school system are seen as far from the ideal body model established by the standards of modern society, mostly due to the differences existing in their bodies, which are not normally considered ideal. Teachers constantly notice that some learning disabled pupils with physical deviations are excluded from social life because they do not match the ideal body stereotype. This can cause changes in their body image-the mental representation of body identity- and is influenced by physiological, sociological and emotional aspects. According to Ferreira and Guimarães (2003), in the current society there is an overvaluation of what is considered beautiful, new, strong, useful and productive. Individuals with disabilities, different from the valued ones, have stigmas of being unproductive, imperfect and useless. Therefore, they can establish negative relationships with their bodies, given the influence people they are in contact with may have in the creation of their body image (Ferreira, 2005). In this way, it is known that movement offers a group of new sensations and perceptions to an individual, different from those experienced during a state of stillness, which will provide a more unified body identity. Such a unified identity will be the precursor of a complete body image that will bring healthy and positive relationships with their own bodies.

Having a positive self-concept and high self-esteem are important factors in leading a happy learning life of LD children with double disadvantages in cognitive and physical domain. When an adolescent with a learning disability does not receive the proper intervention, the problems that they are facing go untreated and lead to equally frustrating issues as an adult with a learning disability. By properly diagnosing students with learning disabilities and providing evidence based

interventions, students will have a higher probability of successfully coping with their learning disability as an adult. Because body image is highly subjective, this physical self-perception may or may not reflect reality. Feeling positive about one's own body is important in establishing one's identity and self esteem, and for this reason, body image may play a significant role in the lives of pupil with learning disabilities (Drench, 2004). Negative body image is a principal component and predictor of a variety of school related problems, such as depression, underachievement, body dysmorphic disorder, and dropout, truancy and absenteeism (Stice, 2002). Body dissatisfaction can result from body image distortion, a misperception of one's appearance, disruption of mobility, body control, or the loss of a body part (Dolan, Birtchnell & Lacey, 2007). Body image distortion that results in negative body image and body dissatisfaction can have a debilitating effect on health and wellness. Therefore, teachers and school psychologists have the responsibility of helping these children to represent and appraise themselves appropriately to ensure that they develop soundly in all domains such as academic, social, health and emotional facets.

2.5 **Learning disabilities and perception of school physical environment**

The school physical environment is an important feature in quality educational provision that responds to the needs of all children in the school system. From an empirical studies by Edgerton, McKechnie and McEwen (2016), titled "Students' perception of their school environments and the relationship with educational outcomes" measuring how students perceive their school physical environments and how these perceptions relate to key educational outcomes, the

results revealed that students' perception of their school physical environments are linked to key educational outcomes and the manner they interact with their environments.

A healthy perception of school physical environment exists when all pupils with learning disabilities feel comfortable, wanted, valued, accepted, and secure in an environment where they can interact with caring significant others they trust. A healthy perception of school physical environment affects everyone associated with the school: students, staff, parents, and the community. It is the belief system or culture that underlies the day-to-day operation of a school. Collectively and individually, a healthy school physical environment can have a major impact on the success of all pupils particularly those with learning disabilities in the school. Other studies by Stice (2002 & 2005) have consistently shown a link between a healthy school physical environment and other important measurements of school success of children with learning disabilities, including: academic achievement, high morale, staff productivity and effective management.

A healthy perception of school physical environment connotes a satisfaction with the physical and aesthetic surroundings of the school. Factors that influence the physical environment are the school building and the area surrounding it, biological or chemical agents, and physical conditions such as temperature, noise, lighting, ventilation, landscape, structural accessibility to all learners and aesthetic beauty. (Cash, Maikkula & Yamamiya, 2004). A measure of the quality of a healthy physical school environment is students' feelings of safety and connectedness to their school. In a healthy school physical environment, pupils with learning disabilities feel close to people at school, are happy to be there, feel a part of the

school, believe teachers treat them fairly, and feel personally safe while at school. Safety includes physical, emotional, and intellectual considerations. Intellectual safety is a subset of emotional safety and refers to students' comfort when they take intellectual risks at school, such as asking questions, making comments, expressing their learning difficulty, joining groups, and choosing to study difficult topics.

Creating a learning environment that respects diversity sets the scene for fostering children's positive self-concept and attitudes. Such an environment assists children in developing positive ideas about themselves and others, creates the conditions under which children with learning disabilities initiate conversations about differences, and provides the setting for introducing activities about differences and creating fair and inclusive communities. Environments that provide opportunities to explore cultural diversity and celebrating cultural diversity as well as individual differences tend to be the best for children with learning disabilities due to their atypical characteristics. Children can explore diversity in family structure, gender roles, and abilities if their environment contains materials such as dolls, books, dress-up clothes, puzzles, manipulatives, and dramatic play materials that depict a variety of family structures, gender roles, and people with a variety of disabilities. According to Cash and Pruzinsky (2002), the following guidelines suggest the types of images that are desirable in an early childhood environment in order to create an inclusive, diverse setting:

i. images of the children and their families and/or caregivers as well as images of staff

ii. images that accurately reflect people's current daily lives including home, work and recreation

iii. images of children and adults that represent all groups in the children's community

iv. images of all the cultural groups across the country and in the world

v. images that show people of various cultural groups and ages engaged in both similar and different activities

vi. images that reflect diversity in gender roles

vii. images that show diversity in family styles and configurations

viii. images that depict diversity of abilities and body types

ix. images that counter stereotypes

National Joint Committee on Learning Disabilities (2005) stated that pupils with learning disabilities perceive the school environment from different perspectives such as the social environment, structural and structural environment and emotional. A school environment devoid of physical threat, social and structural inaccessibility is considered conducive for children with learning disabilities. Department of Education Office of Civil Rights (2007) stated that disability harassment is conduct that creates a hostile school environment which limits pupils with learning with disabilities from participating in or benefiting from school activities or services. Harassment can be physical or verbal abuse and intimidation. Disability harassment, unlike bullying, may also include conduct that is not directed at a specific target, is not motivated by intent to cause harm, and involves isolated incidents. However, bullying can be disability harassment if the bullying is on the basis of disability and/or targets people with disabilities.

Solomon, Zaichkowsky and Polegato (2005) noted that disability harassment is "intimidation or abusive behaviour toward a child based on disability that creates

a hostile environment by interfering with or denying a child's participation in or receipt of benefits, services, or opportunities in the institution's program. School may violate the right to education of a child with learning disabilities when peer harassment based on physique, sex, or disability is sufficiently serious that it creates a hostile environment and such harassment is encouraged, tolerated, not adequately addressed, or ignored by school employees. Harassment creates a hostile environment when the conduct is sufficiently severe, pervasive, or persistent so as to interfere with or limit a student's ability to participate in or benefit from the services, activities, or opportunities offered by a school.

In a positive school climate where all members of the school community expect and experience acceptance, the challenges of different populations within the diverse group of pupils with learning disabilities may not loom as large. In schools with positive environment, students with and without learning disabilities benefit from opportunities to interact and to develop friendships with one another and with staff members which guarantee social, emotional and physical security. When pupils with learning disabilities become less socially isolated, students without disabilities gain understanding about individual differences and the importance of empathy, acceptance, and support for all people (US Department of Education, 2000). As a general rule, schools should adopt curricula and programs that promote dignity and respect for all students. This approach includes an emphasis on social-emotional learning; character development, human rights, and helping all students in a school develop appropriate social and behavioural skills. Various sensitization programmes through workshops, seminars, symposia, conferences could be employed to enforce these values.

Subgroups among the larger group of students with learning disabilities may require elevated support to assimilate and benefit from the school's approach. Teachers and support staff, especially school psychologists and school social workers, have a major role to play in protecting pupils with learning disabilities from bullying, in helping them manage peer relations and to desist from bullying others. In cases where these pupils have been bullied, it is essential that each child understands that he or she is not at fault. Bullying involves a combination of an imbalance of power, an intent to cause harm, and repetition. Bullying exists in many forms:

i. Verbal bullying: taunting, teasing, name calling, and threatening;
ii. Physical bullying: hitting, tripping, kicking, spitting, and pushing;
iii. Social bullying: spreading rumours, manipulating social relationships, demanding money or property, or intimidation; and
iv. Cyber-bullying: electronic acts including use of texting, social media websites such as Facebook or YouTube, Twitter, Instagram, Messenger and email to humiliate targets.

Peer victimization, in which pupils with learning disabilities are repeatedly harassed, ridiculed, teased, scorned, and excluded, is one of today's most overlooked educational problems (Brendtro, 2001). Students consistently rank verbal behaviour as the primary mode of teasing, and it has been found that long-term verbal harassment is as damaging psychologically as infrequent physical harassment. Students express a great deal of confusion about teasing and how to deal with it, and some argue that social and communication skills are central to dealing with teasing and harassment in any successful anti-bullying efforts (Hoover

& Oliver, 2006; Hoover & Olson, 2000; Stein, 2005). Children and young adults spend the majority of their days within school systems in the presence of adults. Schools must begin implementing comprehensive anti-bullying and antiviolence programs to reduce bullying and teasing of pupils with learning disabilities. The U.S. Department of Education (2000) stated that at a minimum, schools must develop and disseminate an official policy and grievance procedures that prohibit discrimination based on disability and that address disability harassment.

Additional suggestions from the U.S. Department of Education (2000) specifically targeted to prevent disability harassment include:

1. Create a campus environment that is aware of and sensitive to disability concerns and harassment.
2. Weave this issue into curriculum or extra-curricular programs.
3. Encourage parents, students, employees, and community members to discuss disability harassment and report it when they become aware of its occurrence.
4. Publicize anti harassment statements and procedures for addressing discrimination complaints.
5. Provide appropriate training for staff and students regarding harassment.
6. Counsel both victims and perpetrators of harassment.
7. Implement monitoring programs to follow up on resolved issues of disability harassment.
8. Assess and modify existing disability harassment policies and procedures to ensure effectiveness.

Although bullying and teasing are often considered a harmless activity, research shows that they may result in serious short- and long-term negative consequences. Pupils with learning disabilities are particularly vulnerable and represent a high-risk group for becoming both potential victims and perpetrators of bullying and teasing. Addressing this issue in isolation is not the answer. Comprehensive, school-wide reform programs are a proactive strategy for meeting the needs of pupils with learning disabilities, the student body at large, school staff, families, and community members. UNESCO (1994) stated that developing inclusive schools that cater for a wide range of pupils in both urban and rural areas requires: an effective public information effort to combat prejudice and create informed and positive attitudes - an effective programme of orientation and staff training - and the provision of necessary support services. Changes in all the following aspects of schooling, as well as many others, are necessary to contribute to the success of inclusive schools: curriculum buildings, school organization, school ethos and extracurricular activities.

Hoover and Olson (2000) in their study reported that pupils with learning disabilities who attended schools with a positive, respectful climate were able to focus on learning and realize their academic, interpersonal and athletic potential. Such schools have clearly, explicitly communicated policies and procedures that set clear boundaries for respectful, nonviolent treatment of school community members and support an environment that is free of negative and harmful physical, social, emotional and intellectual language and actions against pupils with learning disabilities. When students perceive they have a stake in their school community, negative anti-social and risky behaviours tend to decrease and participation in

school community programs and projects, including academic activities, tends to increase.

School climate is critically linked to risk prevention and health promotion (Stein, 2005). A positive, respectful school climate provides a solid foundation for supporting learning disabled pupils' academic achievement and development of positive attitudes and behaviours. LD pupils who are connected to school (i.e., feel safe, perceive themselves to be treated fairly by adults, are happy to be in school, feel they are a part of the school community, and feel close to people at school) experience less distress and engage in fewer risk-taking behaviours (Blum, 2002, 2005). LD pupils with high levels of school connectedness demonstrate lower levels of violence and report more factors that protect them from engaging in risky sexual and substance abuse behaviours. Teachers reported in Blum (2005) study that pupils with learning disabilities with a commitment to school have high self-esteem. The school social-emotional climate is predictive of mothers' reports of their school-age children's substance abuse and psychiatric issues. A strong relationship exists between school climate and student self-concept, student absenteeism, and suspension rates. LD pupils who feel safe, cared for, appropriately supported, and sensitively encouraged to learn in challenging and meaningful ways experience increased academic achievement.

School climate research suggested that positive interpersonal relationships and optimal learning opportunities can increase achievement levels and reduce high-risk behaviour for pupils with LD in all demographic environments. According to Megan and Marshall (2002), research on school climate in high-risk urban environments indicates that a positive, supportive, and culturally conscious school

climate can significantly shape the degree of academic success experienced by urban pupils with learning disabilities. Furthermore, researchers have found that positive school environment perceptions are protective factors for boys and may supply high-risk students with a supportive learning environment yielding healthy development, as well as preventing antisocial behaviour (Blum, 2005, and Hoover and Olson, 2000). A positive school climate results in positive outcomes for school personnel as well. Characteristics of school climate, especially trust, respect, mutual obligation and concern for others' welfare, can have powerful effects on educators' and learners' interpersonal relationships (Center for Social and Emotional Education, 2005). Safe, collaborative learning communities where students with learning disabilities feel safe and supported report increased teacher morale, job satisfaction, and retention. The interaction of various characteristics of school and classroom climate can create a fabric of support that enables all members of the school community not only to learn but also to teach at optimum levels (Hoover & Oliver, 2006). Conversely, a negative school climate interferes with learning and development of children with learning disabilities.

Making sure every child perceives that he or she has an adult champion at school is one of the most important academic and social supports a child in school can have. A special connection with an adult means the student feels entirely comfortable seeking out that adult to share information, concerns, worries, achievements and problems about personal or school matters. Although friendships with adults at school generally differ from relationships with peers, students who have a special connection with an adult feel that someone will help them when necessary, keep conversations confidential as appropriate, and be caring, concerned

and compassionate. Students trust that these adults will never make them feel disrespected for making mistakes, sharing emotions freely, or being vulnerable in other ways. In other words, students with these relationships feel emotionally and physically safe and supported when with the adult and feel no reservations about sharing their feelings. A special connection with an adult can mean the difference between academic and social success and failure.

Research indicates that bullying is far less likely to continue when all members of the school community recognize and work to eliminate any form of meanness before it becomes habitual. Preventing the development of a pattern is far superior to waiting for true bullying to emerge. Any act of aggression by peers that compromises the safety of the person being targeted for that aggression in any way has a tremendous and long-lasting negative impact on a student with learning disabilities. Fun is only fun if everybody involved agrees it is fun. Even without malicious intent, if it hurts, if it's mean, if it excludes, if it frightens, it will impact a [person's] sense of safety," (Bluestein, 2001).

Leadership is a very critical matter in providing a safe school environment for children with learning disabilities. Delegation of authority for maintaining a positive, respectful school environment to others communicates that administrators do not believe that this concern warrants committed leadership. School administrators should be constantly vigilant and model respectful behaviour throughout the school. The school should demonstrate constant reminders of what respect looks, feels, and sounds like. Respect includes courtesy in words and deeds; reference to individuals in school by the names they wish to be called; engagement in true listening; opportunities to discuss important or difficult matters;

demonstration of compassion for others; fair and appropriate treatment of others; honesty, forthrightness, trustworthiness, understanding and acceptance of differences; recognition that adults as well as students make mistakes; and honest apologies for transgressions. Schools where administrators assume responsibility for such leadership are reported to be much more physically, emotionally and intellectually safe than schools where administrators do not (Solomon, Zaichkowsky & Polegato, 2005).

Parents and guardians are a child's and the school's best ally. Adults in a child's world outside school care deeply about the child's academic achievement, safety and social development. Although those adults may not have the expertise of classroom teachers, they are experts in the lives of their children. For children to succeed at every level, all adults in their world must work collaboratively together on their behalf. The official inclusion of the parental and guardian voice on relevant school committees as well as informal inclusion in all communications (e.g., phone calls, e-mails, conferences, newsletters) is a central feature of a positive school climate. Parents and guardians must perceive the school as a place that welcomes their voices and their presence. When families are interested, engaged and supportive of school-initiated efforts, school-to- home collaboration and student success are far more likely.

Solomon, Zaichkowsky and Polegato (2005) stated that schools support connectedness by offering students with learning diverse classroom and extra-curricular opportunities to develop personal relationships and a sense of belonging. Students who are academically challenged in keeping with their individual capabilities are more likely to feel successful and be engaged in learning. Students

who are bored with their classes or have too many study halls or free periods are more likely to not only engage in appropriate activities but also to exert little effort. Challenging, exciting learning opportunities contribute significantly to feelings of connectedness. Boredom and lack of challenge are primary reasons for learning disability students dropping out of school before graduation. Striking a balance between academic challenge and overextension of expectations and requirements is of critical importance

School personnel without appropriate knowledge, understanding and skills should not be responsible for keeping students safe (US Department of Education, 2000). Violence prevention and school climate improvement are complex, multidimensional issues requiring everyone's concerted attention. When all staff members have opportunities to learn about and practice violence prevention skills, the achievement of a safe, healthy school environment is more likely. The best violence prevention efforts occur outside the curriculum and focus on creating positive and meaningful relationships for all members of the school community—among adults, between adults and students, and among students. Many exemplary, promising science-based programs are available for classroom use.

Implementation strategies include:

1. Ensure that all school administrators and staff learn conflict resolution skills.
2. Train school staff to incorporate violence prevention into peer mediation and student assistance teams.
3. Provide bullying prevention education and training to all school administrators, faculty and staff; after-school workers; cafeteria, custodial and office staff; bus drivers; and extracurricular coaching and athletic staff.

4. Educate school administrators, faculty and staff; after-school workers; cafeteria, custodial and office staff; bus drivers; and extracurricular coaching and athletic staff about the importance of listening to complaints and concerns, taking them seriously, and not ignoring or dismissing reports by students or parents and guardians.
5. Provide school climate improvement education and training to all administrators, faculty and staff; after-school workers; cafeteria, custodial and office staff; bus drivers; and extracurricular coaching and athletic staff.
6. Inform administrators, faculty and staff about social-emotional learning.
7. Provide adequate education and training for proper implementation of character education programs.

Booster, Cox and Kuff (2009) stated that twice exceptional children with physical deformities and learning disabilities perceive the school environment as either being structurally and architecturally accessible and accommodating. The authors revealed that it is not uncommon to see that in school environments pupils with both physical and learning disabilities have limited or no access to classroom buildings conference halls, storey buildings, sporting facilities, recreation/social centres, vocational centres, healthcare and emergency centres, religious centres, social event centres. Perception of accessibility of the school environment by twice exceptional children with learning disabilities is about looking at how the school environment is structurally, socially and architecturally free for unhindered mobility and socialization. It entails creating barrier-free social and mobility chains from door to door and implies more than just customized engineering solutions.

It takes a holistic approach that integrates school planning, architectural and transport engineering measures, as well as product and process design. Special design solutions or add-ons for specific user groups only make situations complex and divide social groups; design features should have wider uses and raise the standard for everyone. Inability to access school facilities and services can lead to diminishing academic and social performance of children with learning disabilities. After an empirical work, Garnett (2010) in an article titled "What are classrooms like for students with learning disabilities", advocated for a kind of restructuring of how classrooms operate to enable everybody learn and make their best progress.

2.6 Learning disabilities and perception of school social environment

Pupils with learning disabilities are connected with the school through social interactions with other elements that make up a school. Social interaction with these pupils promotes exchange between them and school which is the building block and characteristic of a welcoming inclusive school system. Kedrini (2006) noted that a fundamental feature of a school is social interaction or the way people in the school act with each other and react to how other people are acting. Social interaction is a tool for building a 21st century inclusive school that complies with UNESCO's global best practices in education. The value and social participation of pupils with learning disabilities is realized through social interaction which in turn promotes a welcoming school. Pupils with learning disabilities use social perception to evaluate and self-appraise the actions, or practices between them and the school to be mutually oriented towards the development of strong ties, valued existence, and celebration of diversity. Any interaction with them which portrays prejudicial and

derogatory behaviours results to making impression and inferences that weaken their mutual strong ties with the school and diminishes their enthusiasm for learning (National Joint Committee on Learning Disabilities, 2005).

The peers in school, being the closest persons play an important role in the lives of pupils with learning disabilities. There is a general understanding that children who are not accepted by peers and teachers are generally at risk of difficulties both in social and educational development. Acceptance by peers and significant others in school provides much greater challenge for children with various types of learning disabilities. These children are often an easy target for ridicule, social marginalization, neglect, discrimination, teasing and other social pathology by the non-disabled peers and the society because of their inability to function at expected level alongside others (Okachi, 2006). Okachi stated that the common administrative placement (ability grouping) of pupils in the classroom into various levels of competences results in the formation of sub-social ties among these groups and is being transferred from the classroom into social contexts within and outside the school.

This brings obvious social distance, depression, social marginalization, isolation and self-devaluation to pupils with dyslexia who have undue difficulty in reading literary novels in the class, those with dyscalculia who demonstrate incompetence in mathematical operations, dysgraphic pupils who cannot write and the dyspraxic pupils who are not able to recall or plan complex motor activities such as dancing, doing gymnastics, catching or throwing a ball with accuracy in social contexts and producing fluent legible handwriting. Thus, social relationships which are a fundamental determinant of cognitive and social development in pupils with

learning disabilities are often disrupted making these pupils who are socially marginalized have negative and unfriendly social perception of the school. Teachers being frustrated by their poor performance upon consistent teaching incite negative behaviours towards them, becoming socially inclined to the non-disabled and begin to display their frustration in different ways. Obani (2006) asserted that a slightest change in teachers' attitudes towards pupils with learning disabilities is being perceived by them bringing more tension and mental stress to these pupils.

In reviewing studies on the inclusion of children with learning disabilities in Nigerian schools, Odei, Saimo and Kedira (2010), reported that this category of learners faces much of discrimination, isolation, neglect, marginalization, intellectual devaluation, peer rejection, indifference sympathy and loneliness. Samingo and Andel (2003) in their study reported that children without learning disabilities who have mastered basic mathematical operations taught in class tend to play together while reciting the multiplication table and solving other basic mathematical problems. Children with dyscalculia are cut out from others naturally by reason of their inability to play while displaying mastery of what was taught in class.

Thus, these children perceive the social environment as being unfriendly and unfit since they are not welcomed in the school by reason of their deficits in mathematical skills. Hugh (2006) similarly stated that children with dyspraxia have difficulty in mathematical visuo-spatial operations. Visuo-spatial systems support many mathematical competencies such as certain areas of geometry and the solving of complex word problems. Children with dyspraxia showed a performance deficit on a spatial working memory task, geometrical calculation and mathematical

constructions because of their difficulty in praxis. This inability to plan and carry out fine and large motor skills required for drawing and effective use of math set for mathematical construction and geometry result in self defeatism which affect their emotional and social strength.

Social perception pertains to children's capability to perceive for peer relationships, and assertiveness and making inferences of those social behaviours. Studies have demonstrated the critical role of social perception in the process of developing social competence and adjustment of pupils with learning disabilities (Bandura & Barbaranelli, 2001). Social perception seems to play a crucial role and have an impact on academic performance through the promotion of satisfying relationships and social support. Negative perception of social interactions has been found to cause depression and loss of value among pupils with learning disabilities. While an accurate perception of social rejection is likely to produce sad and depressed feelings. Perception of social acceptance helps the child maintain positive feelings about the self and the school social climate. Pupils with LD are likely to perceive themselves more negatively affected by social interaction based on a variety of personal and situational factors. Inference of their social non-acceptance cause negative affect. Negative affect (for instance anger, fear, anxiety, disgust, depression) depresses memory and produces inefficient information processing worsening the mathematical ability of pupils with dyscalculia, dyspraxia, dysgraphia and dyslexia. It affects the performance of complex cognitive functions that require flexibility, integration, and utilization of cognitive material.

Bhuda and Dande (2007) in their study reported that pupils with dyscalculia and dyslexia consistently suffered learned helplessness due to the negative reaction

of teachers and peers towards their disabilities. Since mathematics and reading are basic literacy skills, these children exhibit serious tension and frustration as peers and teachers consistently disapprove their performances in these areas. In contrast, positive affect resulting from perception of social interactions increases access and retrieval of information stored in memory, boosts positive feelings about self, generosity and good will toward others, and facilitates conflict resolution (Baron, 2000). Moreover, since affect is contagious, pupils with learning disabilities can "catch" elation, euphoria, sadness, anger, and depression from the people around them. As a result, pupils with learning disabilities seek the company of those who exhibit positive affect, while avoiding those who are hostile, unfriendly and unsupportive.

Kayode (2005) stated that the psychological and emotional disposition of a child with learning disabilities in the classroom contribute significantly to the pupils' success in the school. Also, Brooks and Goldstein (2002) and Brooks (2000) noted that teachers are to ensure a positive teacher-student relationship and also a subjective understanding of these pupils as an individual with feelings, emotions and attitudes. Pupils with learning disabilities often feel lost and frightened because they have suffered years of despair, discouragement and frustration. They frequently experience feeling of rejection, failure and hopelessness that affect every subject they study in school and every aspect of their lives. Thus, teachers always fail to realize that learning disabilities influence every aspect of the child's world. It is the responsibility of the teachers to educate the parents, peers and collaborate with other personnel to build self-concept and self-esteem of these children to ensure effective learning. Teachers ought to accept the client as a human being

worthy of respect in spite of a failure to learn. Learners should not live in a continuous atmosphere of rejection and failure. The relationship with teacher and peers should provide a new atmosphere of confidence, develop the social skills of these learners, create a learning environment that is friendly, welcoming and that which promotes celebration of diversity in the school. But is not uncommon to see teachers dismiss these learners as failures and misfits, consequently, neglecting them in social activities and class participation which gives these pupils negative perception of what school offers. The hostility and unfriendliness of the school environment often results in truancy, absenteeism and eventual dropout of school.

Similarly, reading is basic and the bed rock of literacy skills. The relevance of reading to educational development of children cannot be over-emphasized. Boateng and Jasi (2002) reported that thousands of children with reading difficulties throughout school and into adulthood revealed how embarrassing and devastating it was to read with difficulty in front of peers and teachers, and to demonstrate this weakness on a daily basis. It is clear from Boateng and Jasi's research that this type of failure affects children negatively earlier than thought. The report further revealed that by the end of first grade, children having difficulty in learning to read begin to feel less positive about their abilities than when they started school. As these children are followed through from elementary and middle school, self-esteem and the motivation to learn to read decline even further.

In the majority of cases, the students are deprived of the ability to learn about literature, science, mathematics, history, and social studies because they cannot read grade-level textbooks. Children with dyslexia lag far behind in vocabulary development and in the acquisition of strategies for understanding what

they read, and they frequently avoid reading and other assignments that require reading particularly in social contexts. Margalit and Ben-Dov (2005) in a similar manner stated that dysgraphic children are consistently ridiculed by peers because of their inability to write legibly. Writing being the cardinal literacy skill attracts attention of children mostly at the primary school level. Those children who demonstrate inability to write legibly are often objects of ridicule in class which leads to depression and tantrum.

Several studies have compared students with and without LD on their negative feelings; namely, depression, anxiety, and loneliness (Margalit, 2001; Margalit & Ben-Dov, 2005). The results of these studies consistently have found that students with LD are more likely in comparison to other students to experience these negative emotions due to consistent failure in basic literacy and numeracy skills such as ability to read, write, manipulate numbers, and partaking in social activities. Feelings of loneliness have been found to range from 1% to 5% in children without disabilities but to range as high as 25% or more among children with learning disabilities due to social negligence by peers and teachers (Pavri & Luftig, 2000). Feelings of loneliness appear to be rooted in reality. For example, Pavri and Luftig found that students with LD were also less popular and more controversial than their peers. However, it is found that negative affect is the result of poor academic achievement and difficulty making and keeping friends. Peers and teachers tend to be attracted to pupils that progress desirably in the general education curriculum.

Also, Margalit and Al-Yagon (2004) reported that preschool children who were identified as learning disabled a year later were more depressed and lonelier

than higher achieving classmates. These children's loneliness is consequent upon the experience of school difficulties and negative reactions of teachers and peers toward their disabilities, thus, the perception of the social atmosphere of the school seems to be unfavorable and socially unsupportive. Furthermore, data showing that peer rejection precedes identification as having LD. Vaughn, Hogan and Shapiro (2000) suggested that peers are reacting to social and academic skill deficits of children learning disabilities and those young peers may avoid pupils with learning disabilities who are dull in order to avoid the contagion of negative affect and underachievement.

Studying emotionality is another way to examine the impact of affect on social status of pupils with learning disabilities. Eisenberg (2006) hypothesized that high emotionality and poor emotional regulatory skills of pupils with learning disabilities interfere with coding social cues in different cognitive and affective contexts, thus preventing a flexible social interaction with them in the school by peers. Highly emotional children, or children upset by others' emotionality, may experience difficulty focusing on a variety of their responses and evaluating them to see how socially acceptable such behaviour are to the society. Elementary school students with learning disabilities having high emotionality and poor emotion regulation skills have been found at risk for behaviour problems. Some of the behaviour problems exhibited by students with LD may be traceable to poor emotional regulatory skills which in turn affect their social skills and interaction with others. For example, dysprasic children having difficulty in participating in social activities due to failure in planning coherent motor activities tend to become emotional often manifesting in tantrum and frustration.

Affect and emotions, which are regulated by the nervous system, have been implicated as a cause and/or correlate in LD. Negative affect and/or poor emotional regulation are likely to "color" children's perceptions and interpretations of others' behaviours toward them as well as others' responses to them (Margalit & Al-Yagon, (2004). Also Koster (2009) noted that social participation of pupils with learning disabilities in regular primary schools shows evidence of positive social contact/interaction between them and their classmates; acceptance of them by their classmates; social relationships/friendships between them and their classmates, and the students' perception that they are accepted by their classmates promote positive learning outcome both in educational and social development.

2.7 Learning disabilities and perception of classroom instruction

A child's school failure and likelihood of being referred to multi-level special education interventions is influenced not only by the child's own characteristics, but also by the manner in which the classroom operates. Pupils' perceptions of the adaptations teachers make to meet their learning needs determine their overall progress in the curriculum in that those pupils' reactions to such adaptations contribute to their likely success in the classroom. Research studies by Margalit (2001) and Margalit and Ben-Dov, (2005) stated that the classroom environment most conducive to school failure is one in which a child in academic trouble is mostly neglected during instructional delivery and the child does individual seatwork while the teacher engages other children in the class in small-group work. Students engaged in individual seatwork receive minimal assistance or corrective feedback while working; increasing the likelihood of failure and

consequent referral. Thus, the way children with various types of learning disabilities view instructional practices that go on in the classroom on daily basis, is critically quintessential to how well they progress and perceive instructional climate as supportive of their needs.

Farrel (2003) discovered in his research that regular teachers shift the responsibility of teaching children with learning disabilities to resource room teachers (if available) and as such no instructional accommodation is provided for them to enhance accessibility of the learning material(s). Secondly, they see the instructional needs of children as a disturbance and inhibition of classroom instructional progress and causing distractions which delays course completion. Therefore they choose to ignore their presence and concentrate on the normal children. Researchers such as Wainscot (2008) and Margalit (2001) have found that effective teaching behaviours include: instructional accommodation to meet the learning needs of children with learning disabilities, reviewing and checking the classwork, and reteaching if necessary; promoting initial pupils practice of new content and skills, and checking for understanding; providing corrective feedback and giving pupils an opportunity for independent practice. In theory, such close monitoring and feedback-intensive practice is be well suited to engage and meet the needs of each individual learning disability, as well as to the needs of the general student body.

Unfortunately, research on teacher attitudes suggests that some effective teachers may not be willing to accept pupils with learning disabilities. For instance, data from one study showed that elementary general education teachers who were considered most effective were also the least likely to accept learning disabilities

child fitted to preordained assumptions regarding the pace and nature of the learning process. The authors noted that pupils with learning disabilities either perceive classroom instructional practices as supportive or unsupportive to their needs. Furthermore, perception of classroom instructional practices as supportive is the essence of schooling since education is regarded as a therapy that remediates the deficits in basic literacy skills which characterized these learners. Experience has demonstrated that it can substantially reduce the dropout and repetition that are so much a part of many education systems while ensuring higher average levels of achievement.

Vaughn, Hogan and Shapiro (2000) affirmed that classroom instructional practices that is based on child-centered pedagogy can help to avoid the waste of resources and the shattering of hopes that is all too frequently a consequence of poor quality instruction and a 'one size fits all' mentality towards education. Child-centered classroom instructions are moreover, the training ground for a people-oriented society that respects both the differences and the dignity of all human beings. Thus, it is the responsibility of teacher to canvass response and opinions of children with various learning disabilities on how well they are meeting and their perception of instructional practices in the classroom. Such evaluation and survey helps to put the teachers in the right track of meeting and ensuring the achievement of educational goals of children with learning disabilities. it also help them to know whether their teaching styles suit the learning styles of their pupils.

Wainscot (2008) argued that if pupils with learning disabilities are to perceive classroom instructional delivery and practices as supportive to their learning needs, teachers are the key persons in facilitating the education and

determining the quality of the classroom environment and the choice of teaching strategies. This means that adjustment of the instructional strategies and the learning environment are fundamental but it depends on the predisposition of schools and teachers' will as well as competency of the teacher. If the teacher has the knowledge about the abilities of and circumstances in which the child with reading disabilities learns best, then it becomes important for the teacher to adjust the instruction to suit the learner's abilities and needs to ensure they feel a sense of community in the classroom. Too often, teachers have not expected learners with learning disabilities to meet the same grade-level standard as other students in inclusive education setting, consequently, designing instruction to meet the need of other children that they are accountable for and neglecting pupils with learning disabilities. A learning disabled child who is a victim of such practice may perceive classroom activities as irrelevant hence he/she is a nonpartisan.

The type of classroom environment that a teacher creates and encourages can either encourage or discourage a learning disabled pupil from learning and feeling comfortable as a member of the class. The classroom environment should do as much in fostering cooperation and acceptance by designing instructional methods to meet the needs of these pupils whose are below par in aspects of psychological processes such as reading writing, mathematical reasoning and manual dexterity. Teachers have the goal of establishing a classroom environment that is favorable for helping all students work cooperatively in order to learn (Vaughn, Hogan & Shapiro, 2000). The classroom environment can either improve or impede a child's ability to learn and feel safe and comfortable as a member of the class depending on

how the learning disabled child perceive classroom pedagogical practices that go on daily in the classroom. Classrooms that encourage emotional well-being create an atmosphere for both learning and emotional development. Educational research supports creating an atmosphere of mutual respect, where students feel relaxed in asking questions and expressing their thoughts and communicate area of learning difficulty for redress (Stronge, 2002).

Such welcoming classroom practices are perceived to be accommodating, lessening classroom anxiety, truancy and uncooperativeness of the classroom. Some areas to consider when creating an atmosphere of mutual respect are classroom design, classroom procedures, and classroom instructional strategies. Implementing a few strategies that address these areas can help develop a strong sense of community and encourage positive interactions and cooperative learning for pupils with and without learning disabilities thereby increasing the learning enthusiasm and attainment of educational goals of children with learning disabilities. A warm classroom environment can lead to increased academic achievement and a sense of pride and belonging in the school. Instructional accommodation plays a part in the ownership these pupils feel about their school and more specifically their class. The classroom environment is to foster cooperation and acceptance of the instructional method the teacher uses. Children are sensitive to the atmosphere created in the classroom. Is the classroom warm and inviting? Are struggling pupils carried along during instructional delivery? Thus, the ability to accept and create a classroom environment that children with learning disabilities feel responsible and involved in learning is a major achievement in educational development of children with learning disabilities (Scott, Leach & Bucholz, 2008).

the activities within different programmes, professional requirements and individual learners' needs. One of the main tasks of a teacher includes helping learners to acquire knowledge and skills, and develop appropriate attitudes that comply with the norm of the society. It also includes helping students to become self- directed and progressive in the general education curriculum. To do this effectively, teachers need to use a range of teaching and facilitation skills and techniques to promote active participation of these children in the classroom regardless of their area of deficits (Hugh, 2006). This will help avoid what Grow (2001) calls 'the mismatch between student and teacher' and help the shift from a 'teacher-centered' to a more 'learner-centered' approach.

Teaching children with learning disabilities is much more than passionate information transmission and behaviour management. Teachers are to ensure that they focus on individual students' learning growth by: monitoring and evaluating their impact on learning and adapting the lesson to meet the needs of each child as well as surveying opinions of LD pupils on how well they are accommodated in classroom instructional practices. Rather than expecting the child to keep up regardless of their circumstances, the teacher can use evidence about what each child knows and understands at the start of the classroom instruction to inform their teaching interventions, then targettheir assessment and teaching practices to maximize the information obtained about their impact (Skidmore, 2004). Teachers are required to optimize the chances of improving children learning on the basis of the above, constructing appropriate teaching and learning environments for the child, whatever their developmental stage and current abilities continuously evaluating the impact of their teaching, to inform next steps. Such practices can help

attention to both what the child cannot do, but especially what the child does to increase learning outcome. The mistakes or errors a child commits may provide additional information regarding learning particular perceptual difficulties or ways of thinking (Hugh, 2006).

The manners in which pupils with learning disabilities perceive classroom instruction affect their overall educational achievement. Teachers are to evaluate their capabilities in meeting the need of these children emotionally, socially and educationally. Loor and Brooks (2004) stated that teaching that meet the needs of these children has been called remediation, educational therapy, intervention or simply good teaching. Such teaching has been described as consisting of five different stages or cycles. These are assessment, planning of the teaching task, implementation of the teaching plan, evaluation of student performance, leading to a modification of the assessment and then to new planning, new forms of implementation, and a continuing sequence of clinical teaching. In doing these with up-to-date skills and knowledge, no matter how complex children characteristics vary in the classroom. A child with learning disabilities is likely to show evidence of instructional effectiveness through improved learning outcome in both the school and community which gives him a sense of accomplishment and joy as a learner with value. This requires that the teacher analyze the effectiveness of the current lesson, the student's progress toward his goal, and alternative methods of moving the child forward toward the goals. Such teaching is planned for a unique child with a specific learning disability (e.g. dyspraxia) rather than for an entire class, and it can be accomplished in a variety of placements, such as regular school or in special education based on trial testing method.

Hill (2007) suggested that in order to ensure that classroom instructional practices are supportive and responsive to the needs of children with learning disabilities, teachers need to start with an understanding of where the learner is in terms of their learning, the level they have reached, past experience, and understanding of learning needs and goals. One of the responsibilities in clinical teaching is to help align the stated, formal learning outcomes with the individual learner's educational needs. Assessing learning needs can be done relatively informally at the start of classroom instruction simply by asking the learners what they would like to or what they expect to get out of the lesson. Making this a routine part of any teaching session helps to avoid those situations where the teacher is gamely plodding on regardless, even though the learners are clearly disengaged with the process.

The first step is to establish a good rapport with learners so that one can work together towards what should be a shared objective. Explain this to the learners, acknowledge their needs and find ways to meet their needs outside the current class. This may involve recommending reading, setting extra teaching or help classes, setting up learning sets or speaking with Pupil Personnel Team as a strategy of remediating the difficulty in basic literacy skills. Pieyet and Pieyet, (2008) enthused that during and towards the end of the class a teacher needs to keep in sight how far the learners have travelled towards the learning goals, where they may have gone off track and what further learning or practice may be required. Teachers need to keep an eye on the tasks they want learners to achieve as well as the process of learning, as both elements are required to ensure that learning needs are met.

Chika (2004) stated that one of the goals of education of children with learning disabilities is to facilitate the learner towards being independent and self-directed, so that they have the capability to learn throughout their adult lives. This does not happen automatically; teachers have a key role in helping to facilitate this and one way to embed it into the learning process is to involve learners in identifying their learning needs. In doing this, feedback given to the learner is a key part of the overall learning cycle and promotes participatory classroom instruction. Working with learners during classroom instruction to assess their own educational needs is also a key part of this cycle and its gives them positive view of instructional practices.

Pupils with learning disabilities require qualified teachers trained and equipped with the skills necessary to meet their classroom needs. Some of these pupils require care support that may be significantly above what would normally be expected of a teacher in the classroom situation. How support is provided in classrooms and the role of a teacher in providing this support is much broader than providing appropriate support for pupils with learning disabilities. Research findings indicate that instructional support necessarily give children with learning disabilities positive perception of classroom activities and increase the child's chances of success in school (Giangreco & Doyle, 2007).

2.8 Summary of literature review

The review of relevant literature and empirical studies have revealed and confirmed the rationale for anticipating a link between learning disabilities (dyslexia, dyscalculia, dysgraphia and dyspraxia) and learners' perceptions of self

(academic, physical, social and moral); and school environment vis a viz school physical environment (landscape, infrastructure, facilities and equipment) and school social environment (teacher- pupil relationship, pupil- pupil relationship, tone of school discipline, co curricular activities and curriculum instruction).

Perception is central to learning. It shapes what is learnt. If a learner's perception of self, learning environment and classroom instruction is positive, it could help him discover his latent potentials, strength, improve upon his weaknesses, make meaning of school activities and navigate through school successfully. But poor self and school perception may emanate as a result of difficulty in one area of learning due to learning disabilities. Learning disabilities manifest in myriad of ways which could affect a range of cognitive, affective and psychomotor traits in learners.

Researchers hold reports and counter-reports on learners' self-perception, perceptions of school physical and school social environments of children with learning disabilities. Be that as it may, there was no research conducted in Akwa Ibom State to reflect the above educational issues as it concerns pupils with learning disabilities, their perception of self and school environment in the primary school. Also, there are no evidences of testing beyond achievement tests to help keep records of various traits and characteristics of the pupils in the public primary schools. It is in response to this curiosity that the researcher is keen on filling this gap identified so as to provide evidence-based pedagogical information on the interplay of these variables. These bits of information could be utilized to ensure that teachers of these pupils meet their learning needs and provide quality

educational services, parents and all stakeholders in education form a synergy in compliance with global best practices to help the learner optimise his potentials.

3.2 Area of the study

The study area is Akwa Ibom State, one of the 36 states in Nigeria. Akwa Ibom State is situated in the South East of the country, lying between latitudes 4.32° and 5.33° North of Equator and longitudes 7.25° and 8.25° East of the Greenwich Meridian. The State is bounded to the east by Cross River, to the West by Rivers State, to the North by Abia State and the South by the Atlantic Ocean. The State covers a total land area of 8,412,000 square kilometres with a population of 3,000,000 (2006 Census). Administratively, Akwa Ibom State has thirty- one local government areas. The common languages spoken by the people are Ibibio, Annang and Oron. The people are peaceful, very accommodating and hospitable. They are a hardworking lot. Their main occupations are trading and farming. The women are great cooks with much sought after mouth watering cuisines. A large proportion of the educated ones are civil servants. Many are in academia and others in politics and business too. In fact, the number one soldier in the Nigerian Army, late Major Wellington Bassey came from Akwa Ibom State.

There are a total of 1,157 public primary schools in the State with a population of 1,134,147 pupils (Akwa Ibom State Universal Basic Education Board, 2016). There are also 240 public secondary schools and other grades of institutions in the state. Among the tertiary are Federal owned institutions like the University of Uyo; Federal Polytechnic, Ukana; Maritime Academy, Oron and state institutions such as the Akwa Ibom State University, Ikot Akpaden; College of Education, Afaha Nsit and State Polytechnic, Ikot Osurua. Akwa Ibom state operates the 'free and compulsory education' for every child of school age up to Senior Secondary School (SS3) level.

3.3 Population of the study

The population of this study consisted of all the 153,107 primary five pupils in the 1,157 public primary schools in Akwa Ibom State, during the 2016/2017 school year (Akwa Ibom State Universal Basic Education Board, 2016). The pupils are spread across all primary schools in the urban and rural areas of the 31 Local Government Areas of Akwa Ibom State. As shown on Table 1, of the 153,107 pupils; 74,573 are males while 78,534 are females.

3.4 Sampling technique

In this study, the stratified random sampling technique was used for sample selection. This was done to ensure representativeness of the sample. First, Akwa Ibom State was stratified on the basis of its three Education Zones, namely Uyo, Ikot Ekpene and Eket. Each Education Zone had its own Local Government Education Authorities (LGEA), nine, ten and twelve for Uyo, Ikot Ekpene and Eket LGEAs respectively. From each LGEA, 30% of the LGEAs were randomly selected for the study. This resulted in the selection of ten LGEAs as shown in Table 2. In the selection of LEAs, 15% of the primary schools were selected for the study. As shown in Table 3, this resulted in the selection of a total of 48 schools in Akwa Ibom State for the study. In each of the sampled schools, 10% of its primary five pupils were randomly selected. This resulted in the selection of a total of 740 primary five pupils for the study as shown in Table 4.

TABLE 1
Total population of pupils in Primary 5 across the LGEAs in Akwa Ibom State

S/No	LGEA	No of school	Male	Female	Total
1	Abak	43	2843	2867	5710
2	Eastern Obolo	11	1288	1309	2597
3	Eket	29	2608	2717	5325
4	Esit-Eket	16	1162	1248	2410
5	Essien Udim	55	4103	4184	8287
6	Etim-Ekpo	43	3535	4060	7595
7	Etinan	41	2078	2546	4624
8	Ibeno	12	1259	1218	2577
9	Ibesikpo-Asutan	51	2609	2682	5291
10	Ibiono-Ibom	63	3585	3591	7176
11	Ika	18	1248	1347	2595
12	Ikono	59	3923	3101	7024
13	Ikot Abasi	35	2341	2494	4835
14	Ikot Ekpene	36	2475	2588	5063
15	Ini	55	3998	4226	8224
16	Itu	38	2118	2194	4312
17	Mbo	29	2564	2694	5258
18	Mkpat-Enin	49	2404	2706	5110
19	Nsit-Atai	25	1758	1856	3614
20	Nsit-Ibom	34	2057	2076	4133
21	Nsit-Ubium	38	2177	2145	4322
22	Obot-Akara	38	2108	2142	4250
23	Okobo	32	1656	1670	3326
24	Onna	28	1801	1997	3798
25	Oron	13	1135	1377	2512
26	Oruk Anam	75	4410	4670	9080
27	Ukanafun	64	995	1047	2042
28	Udung-Uko	11	3008	3418	6426
29	Uruan	45	2133	2605	4738
30	Urue-Offong/Oruko	21	1361	1664	3024
31	Uyo	47	3634	3995	7829
	Total	1,157	74,573	78,534	153,107

Source: State Universal Basic Education Board, Uyo, Akwa Ibom State. (2016/2017 School Year)

TABLE 2
Education Zones and 30% of the LGEAs selected for the study

S/No	Education Zone	No. of LGEAs	No. of LGEAs selected (30%)
1	Ikot Ekpene	10	3
2	Eket	12	4
3	Uyo	9	3
	Overall Total	31	10

TABLE 3
Summary of the sampling technique procedure

S/No	Names of selected LGEAs	Total No of schools	No. of Schools Sampled
1	Abak	43	6
2	Eastern Obolo	11	2
3	Eket	29	4
4	Essien Udim	55	8
5	Etinan	41	6
6	Ikot Ekpene	36	5
7	Nsit Atai	25	4
8	Onna	28	4
9	Oron	13	2
10	Uyo	47	7
	Total	328	48

3.5 Sample

The sample for this study was made up of 740 Primary 5 pupils (357 males and 383 females). Table 4 showed the spread of the subjects across sex and their LGEAs.

3.6 Instrumentation

An instrument titled Learning Disabilities and Perception Battery (LDPB) was used for data collection. The instrument was constructed by the researcher based on knowledge obtained from literature and personal experiences. The instrument, LDPB, has three sections labelled Part I to III that measured demographic data of the subjects. These are:

Part I: Demographic Data

-Sex

-Age

-Class

Part II: Part II is a scale measuring Learning Disabilities. This part has four sections. Section A is a five item scale that measured the respondents reading disorder labelled Dyslexia. Section B also had five items that measured the respondents' handwriting disorder labelled Dysgraphia. Section C on the other hand measured Arithmetic disorder labelled Dyscalculia. Section D also had five items that measured the respondents' fine motor deficit labelled Dyspraxia.

Part III: Part III was a four point-item Likert-type scale measuring pupils' perception of self. The scale has four sections labelled i) to iv) (Academic, physical, social and moral). Each of section i) to iii) has four subsections labelled A to D,

with two items for each subsection; while section vi) of Part III has no subsection but with six items.

Section i: Perception

Section A: Academic self perception. Nos. 21-22

Section B: Physical self perception. Nos. 23-24

Section C: Social self perception. Nos. 25-26

Section D: Moral self perception. Nos. 27-28

Section ii: This was a four point Likert-type scale measuring pupils' perception of their school physical environment. The scale has four subsections:

Section A: Landscape. Nos. 29-30

Section B: Infrastructure. Nos. 31-32

Section C: Facilities. Nos. 33-34

Section D: Equipment. Nos. 35-36

Section iii: This was a four point Likert-type scale measuring school social environment. The scale has four subsections.

Section A: Pupil –Teacher relationship. Nos. 37-38

Section B: Pupil-pupil relationship. Nos. 39-40

Section C: Tone of school discipline. Nos. 41-42

Section D: co curricular activities. Nos. 43-44

Section iii: This was also a four point Likert-type scale measuring pupils' perception of classroom instruction. This scale has no subsection.

Classroom instructions. Nos. 45-50

TABLE 5
Cronbach alpha reliability result of the research instrument

S/N	Variable	No. of items	Mean	Std. Deviation	α
1.	Dyslexia	5	2.38	1.63	.72
2.	Dysgraphia	5	3.14	1.74	.76
3.	Dyscalculia	5	1.94	1.70	.74
4.	Dyspraxia	5	1.86	1.74	.78
5.	Overall learning disabilities	20	9.32	3.51	.74
6.	Perception of self	8	25.08	4.67	.77
7.	Perception of school physical environment	8	22.83	4.36	.71
8.	Perception of school social environment	8	24.36	4.18	.73
9.	Perception of classroom instruction	6	18.52	3.61	.76

3.7 Procedure for data collection

The researcher used the help of class teachers on the demands of the study. She personally visited each of the sampled schools and with the permission of the head teacher, assembled the pupils selected for the study in a classroom, and administered the copies of the questionnaire to them. Privacy and confidentiality of responses obtained was assured.

3.8 Procedure for data preparation and scoring

For easy statistical analysis, the researcher collected and collated the data using an appropriate coding schedule. The information in Section Part I of the instrument which represented the score on the demographic data and four sub variables of the independent variable was scored and coded appropriately in accordance with the levels assigned to them. In Part II, the measure of a given variable was coded by the sum of the scores a respondent obtained in that variable. The raw score was then subtracted from 5 as this was the highest score possible.

The obtained difference became the Learning disability score for that pupil. For instance, if a pupil had 3 in dysgraphia, the 3 was subtracted from 5; meaning that the dysgraphia score of the student was 2. Part III had a straightforward coding schedule. The positively worded items were scored as follows:

Completely True (CT)	–	4 point
True (T)	–	3 points
False (F)	–	2 points
Completely False (CF)	–	1 point

The magnitude of the weight was reversed on negatively worded items. After collecting the questionnaire, codes/score were assigned to each item. For smooth data preparation, a coding schedule was prepared by developing a key for each of the constructs of the instrument (s) in a tabular form as shown on Table 6.

3.9 **Procedure for data analyses**

The methods of analyses applied in this study depended on the individual research questions and hypotheses. Descriptive statistics (simple percentages and bar graphs) and Pearson Product Moment Correlation analysis were used in responding to the research questions while the hypotheses were analyzed using Multiple Linear Regression analysis tested at .05 level of significance.

3.9.1 Research question one

What types of learning disabilities are prevalent among primary school pupils in Akwa Ibom State?

Variable involved: Learning disabilities

Test statistic: Simple percentages and bar graph

3.9.2 Research question two

What proportions of primary school pupils in Akwa Ibom State have healthy perceptions of themselves and their school environment?

Variable involved: Pupils self perception and perception of school environment

Test statistic: Simple percentages and bar graph

3.9.3 Research question three

To what extent do learning disabilities relate with pupils' self perception in Akwa Ibom State?

Variables involved: Learning disabilities and pupils' self perception

Test statistic: Pearson Product Moment Correlation

3.9.4 Research question four

To what extent do learning disabilities relate with pupils' perceptions of their school physical environment in Akwa Ibom State?

Variable involved: Learning disabilities and school physical environment

Test statistic: Pearson Product Moment Correlation

3.9.5 Research question five

In what ways do learning disabilities relate with pupils' perceptions of their school social environments in Akwa Ibom State?

Variable involved: Learning disabilities and perception of school social environment

Test statistic: Pearson Product Moment Correlation

3.9.6 Research question six

In what ways do learning disabilities relate with pupils' perception of their classroom instruction in Akwa Ibom State?

Variable involved: Learning disabilities and perception of classroom instruction

Test statistic: Pearson Product Moment Correlation

3.9.7 Hypothesis one

Learning disabilities do not significantly predict primary school pupils' perception of self in Akwa Ibom State.

Independent variable: Learning disabilities

Dependent variable: Pupils' self perception

Statistical technique: Multiple Linear Regression

3.9.8 Hypothesis two

Learning disabilities do not significantly predict primary school pupils' perceptions of their school physical environments in Akwa Ibom State.

Independent variable: Learning disabilities

Dependent variable: Perception of school physical environment

Statistical technique: Multiple Linear Regression

3.9.9 Hypothesis three

Learning disabilities do not significantly predict primary school pupils' perceptions of their school social environments in Akwa Ibom State.

Independent variable: Learning disabilities

Dependent variable: Perception of school social environment

Statistical technique: Multiple Linear Regression

3.9.10 Hypothesis four

Learning disabilities do not significantly predict primary school pupils' perceptions of their classroom instruction in Akwa Ibom State.

Independent variable:	Learning disabilities
Dependent variable:	Perception of classroom instruction
Statistical technique:	Multiple Linear Regression

3.10 **Operational definition of terms**

These terms are defined here operationally as used in the work.

1. Dyslexia: It is a disorder of children with consistent reading difficulty despite consistent instruction. This was measured with items 1 – 5 of Part II, Section A of the instrument).
2. Dysgraphia: It is a disorder of handwriting. This was measured with items 6 – 10 of Part II, Section B of the instrument.
3. Dyscalculia**:** It is a problem of inability to calculate or do mathematical reasoning. This was measured with items 11 – 15 of Part II, Section C of the instrument.
4. Dyspraxia**:** It is the dysfunction in fine motor control and poor manual dexterity. This was measured with items 16 – 20 of Part II, Section D of the instrument.
5. Learning disabilities: Learning disability is a spectrum of disorders manifested by significant difficulties in the acquisition and use of listening, speaking, reading, writing, reasoning or mathematical skills and manipulative abilities. This was measured with items 1 – 20 of Part II, Sections A – D of the instrument.

6. Self perception: This is the knowledge a pupil has about his or her academic progress and achievement. This was measured with items 21 – 28 of Part III of the instrument).

7. Perception of school physical environment: This is a pupil's view of the aesthetic beauty of his learning environment, school buildings and environs, adequacy and sufficiency of equipment. This was measured with items 29 – 36 of Part III of the instrument.

8. Perception of school social environment: This is the way a pupil views of how the school environment is friendly, devoid of physical threat and conducive for his/her learning. This was measured with items 37 – 44 of Part III of the instrument.

9. Perception of classroom instruction: This is the way a pupil views the classroom instructional practices with respect to how those practices are meeting his learning needs. This was measured with items 45 – 50 of Part III of the instrument.

CHAPTER FOUR

RESULTS AND DISCUSSION

This chapter is focused on result of data analyses and discussion of the findings in the study. The chapter is organized along the following headings:

4.1 General description of research variables

4.2 Presentation of results

4.3 Discussion of findings

4.1 General description of research variables

This study was aimed at delineating the type of learning disabilities and perception of self and school environment among primary school pupils in Akwa Ibom State and also to determine if learning disabilities can predict the pupils' perception of self and school environment. The variables involved in the study are: (i) learning disabilities and (ii) perception of self and school environment. For perception of school environment, considerations were given to perception of school physical environment, perception of school social environment and perception of classroom instruction. The mean scores and standard deviations of students in these variables across sex are as presented in Table 7.

As shown in Table 7, the mean scores of the subjects as regards sub-variables of learning disabilities ranged from 1.61 for males in dyspraxia, to 3.58 for males in dysgraphia. The standard deviations on the other hand, ranged from .80 for males in dysgraphia, to 1.46 for females in dyslexia and overall dyslexia. The mean score obtained by the male subjects as regards overall learning disabilities was 9.62 with a standard deviation of 3.51.

TABLE 7
Mean scores and standard deviations of subjects in the study variables by sex

SN	Main variable	Sub variables	Groups	N	$\overline{X}$	SD
1.	Learning disabilities	Dyslexia	Males	328	2.52	1.45
			Females	404	2.47	1.46
			Total	732	2.49	1.46
		Dysgraphia	Males	328	3.58	.80
			Females	404	3.56	.82
			Total	732	3.57	.81
		Dyscalculia	Males	328	1.92	1.43
			Females	404	1.86	1.38
			Total	732	1.88	1.40
		Dyspraxia	Males	328	1.61	1.09
			Females	404	1.79	1.18
			Total	732	1.71	1.15
2		Perception of self	Males	328	23.12	2.87
			Females	404	23.39	2.52
			Total	732	23.27	2.69
3	Perception of school environment	Physical environment	Males	328	20.66	2.98
			Females	404	20.99	2.87
			Total	732	20.84	2.92
		Social environment	Males	328	21.97	3.13
			Females	404	22.44	2.97
			Total	732	22.23	3.05
		Classroom instruction	Males	328	17.60	2.72
			Females	404	17.70	2.96
			Total	732	17.66	2.85
		Overall perception of school environment	Males	328	60.23	5.08
			Females	404	61.13	5.69
			Total	732	60.73	5.44

The female subjects on the other hand had a mean score of 9.67 with a standard deviation of 3.51. For all respondents (males and females combined), the overall mean score in the overall learning disabilities was 9.65 while the overall standard deviation was 3.50.

The mean score obtained by the male subjects with regard to perception of self was 23.12 with a standard deviation of 2.87, while the female subjects had a mean score of 23.39 with a standard deviation of 2.52, and the overall group had a mean score of 23.27 with a standard deviation of 2.69. As regards school environment, the mean scores obtained ranged from 17.60 for males in perception of classroom instruction to 22.44 for females in perception of school social environment, while the standard deviations obtained on the other hand, ranged from 2.72 for males in perception of classroom instruction, to 3.13 for males in perception of school social environment. With regard to overall school environment, the mean scores obtained by the males was 60.23 with a standard deviations of 5.08, while the females obtained a mean score of 61.13 with a standard deviations of 5.69 and a mean score of 60.73 with a standard deviations of 5.44 was obtained by the whole subjects.

4.2 **Presentation of results**

In results presentation, response to each research question was followed with the result of the hypothesis testing. Each of the hypotheses was tested at .05 level of significance.

4.2.1 Research question one

What types/forms of learning disabilities are prevalent among primary school pupils in Akwa Ibom State?

The study, ab initio, was based on the assumption that all learners have one form of disability or the other. This research question sought to determine the amount or levels of the four main learning disabilities that were prevalent in the sample selected for the study.

The results as presented in Table 8 showed that with regards to dyslexia; 31.1%, 17.4% and 51.5% of the male subjects, and 29.2%, 22.3% and 48.5% of the female subjects were respectively low, moderate and high. About 30.1%, 20.1% and 49.9% of total group were respectively low, moderate and high. With regard to dysgraphia, 70.1%, 19.8% and 10.1% of the male subjects, and 69.8%, 19.6% and 10.6% of the female subjects were respectively low, moderate and high. For total group, 69.9%, 19.7% and 10.4% were respectively low, moderate and high.

As regards dyscalculia, 15.2%, 20.7% and 64.0% of the male subjects, and 13.9%, 18.8% and 67.3% of the female subjects, were respectively low, moderate and high. While for the total group, 14.5%, 19.7% and 65.8% of the samplewere respectively low, moderate and high. The results further showed that with regard to dyspraxia, 6.4%, 13.7% and 79.9% of the male subjects, and 10.1%, 13.6% and 76.2% of the female subjects, were respectively low, moderate and high. For the total group of the respondents, 8.5%, 13.7% and 77.9% were respectively low, moderate and high in that learning disability.

TABLE 8
Proportions showing prevalence of learning disabilities among primary school pupils in Akwa Ibom State

Variables	Sex	N	Levels of the study variables		
			Low	Moderate	High
			%	%	%
Dyslexia	Male	328	31.1	17.4	51.5
	Female	404	29.2	22.3	48.5
	Total	732	30.1	20.1	49.9
Dysgraphia	Male	328	70.1	19.8	10.1
	Female	404	69.8	19.6	10.6
	Total	732	69.9	19.7	10.4
Dyscalculia	Male	328	15.2	20.7	64.0
	Female	404	13.9	18.8	67.3
	Total	732	14.5	19.7	65.8
Dyspraxia	Male	328	6.4	13.7	79.9
	Female	404	10.1	13.6	76.2
	Total	732	8.5	13.7	77.9
Overall learning disabilities	Male	328	23.2	38.4	38.4
	Female	404	21.8	39.6	38.6
	Total	732	22.4	39.1	38.5

Further examination of the results shows that for overall learning disabilities, 23.2%, 38.4% and 38.4% of the male subjects, and 21.8%, 39.6% and 38.6% of the female subjects, were respectively low, moderate and high. Moreover, about 22.4%, 39.1% and 38.5% of all subjects were respectively low, moderate and high. Apparently, of all the learning disabilities captured in the study, dyspraxia was most prevalent among the respondents, followed by dyscalculia, dyslexia and dysgraphia in descending order. The levels of learning disability prevalent among the males and females are illustrated pictorially in Figure 1.

4.2.2 Research question two

What proportions of primary school pupils in Akwa Ibom State have healthy perceptions of themselves and their school environment?

The results as presented in Table 9 showed that with regard to perception of self, 0%, 73.5% and 26.5% of the male subjects respectively exhibit low, moderate and high in their level of self perception while 0%, 70.5% and 29.5% of the female subjects respectively exhibit low, moderate and high in their level of self perception, and 0%, 71.9% and 28.1% of the them respectively were low, moderate and high in their level of self perception. The results also showed that as regards perception of school physical environments, 5.8%, 85.7% and 8.5% of the male subjects respectively exhibit low, moderate and high in their level of perception of school physical environments while 1.7%, 87.1% and 11.1% of the female subjects respectively exhibit low, moderate and high in their level of perception of school physical environments, and 3.6%, 86.5% and 10.0% of the them respectively were low, moderate and high in their level of perception of school physical environments.

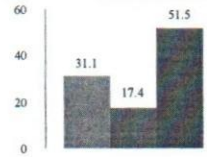
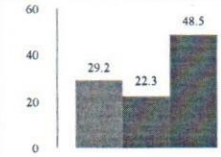
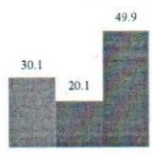
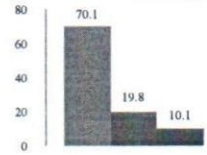
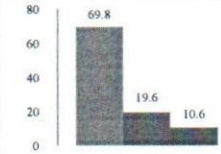
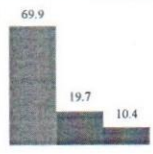
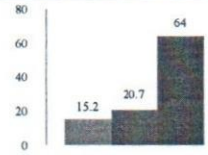
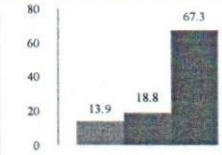
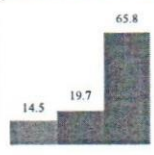
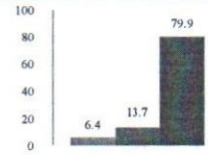
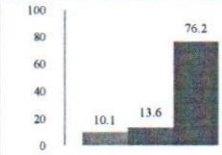
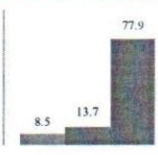
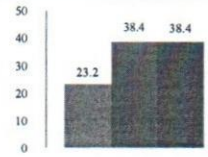
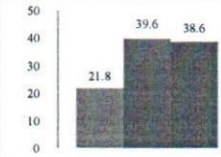
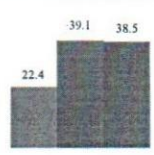
SN	Variables	Male N = 328	Female N = 404	Total N = 732
1.	Dyslexia			
2.	Dysgraphia			
3.	Dyscalculia			
4.	Dyspraxia			
5.	Overall learning disabilities			

FIG. 1 Bar graph pictorially illustrating the proportions of prevalence of learning disabilities among primary school pupils in Akwa Ibom State by sex.

Key: Low Moderate High

TABLE 9
Proportions showing healthy perceptions of themselves and their school environment

Variables	Sex	N	Levels of the study variables		
			Low	Moderate	High
			%	%	%
Self perception	Male	328	.0	73.5	26.5
	Female	404	.0	70.5	29.5
	Total	732	.0	71.9	28.1
Perception of school physical environments	Male	328	5.8	85.7	8.5
	Female	404	1.7	87.1	11.1
	Total	732	3.6	86.5	10.0
Perception of school social environments	Male	328	1.2	79.3	19.5
	Female	404	.2	73.5	26.2
	Total	732	.7	76.1	23.2
Perception of classroom instruction	Male	328	1.5	65.2	33.2
	Female	404	1.7	59.7	38.6
	Total	732	1.6	62.2	36.2
Overall perception of school environment	Male	328	2.83	76.73	20.40
	Female	404	1.80	73.43	25.30
	Total	732	1.97	74.93	23.13

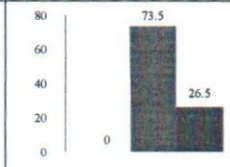
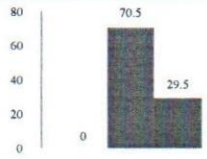
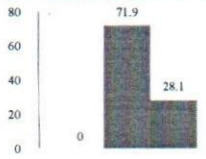
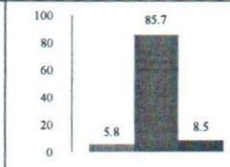
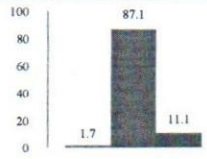
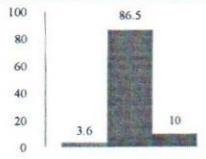
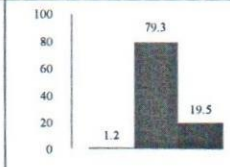
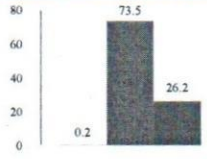
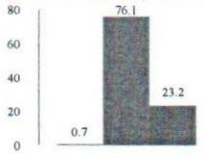
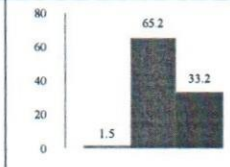
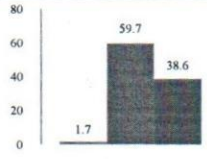
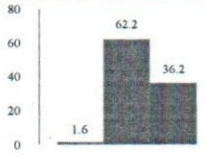
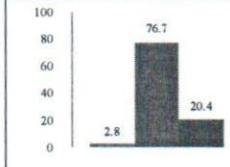
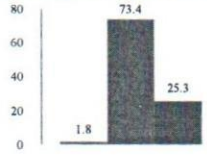
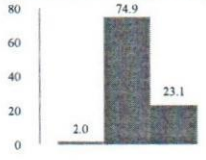
SN	Variables	Male N = 328	Female N = 404	Total N = 732
1.	Self perception			
2.	Perception of school physical environments			
3.	Perception of school social environments			
4.	Perception of classroom instruction			
5.	Overall perception of school environment			

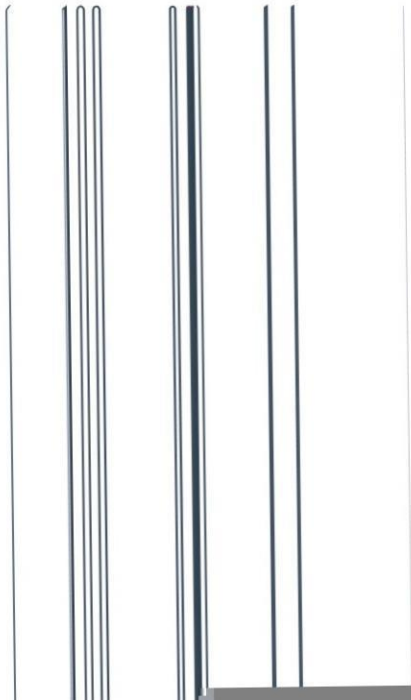
FIG. 2 Bar graph pictorially illustrating the proportions of healthy perceptions of self and school environment among primary school pupils in Akwa Ibom State by sex.

Key: Low Moderate High

4.2.3 Research question three

To what extent do learning disabilities relate with pupils' self perception in Akwa Ibom State?

The results of the correlation matrix presented in Table 10, revealed that the pupils' self-perception has a significant negative relationship with dyslexia (r=-.229; p<.05); dysgraphia (r=-.169; p<.05); dyscalculia (r=-.146; p<.05); dyspraxia



4.2.3 Research question three

To what extent do learning disabilities relate with pupils' self perception in Akwa Ibom State?

The results of the correlation matrix presented in Table 10, revealed that the pupils' self-perception has a significant negative relationship with dyslexia (r=-.229; p<.05); dysgraphia (r=-.169; p<.05); dyscalculia (r=-.146; p<.05); dyspraxia (r=-.100; p<.05); and the overall learning disabilities (r=-.225; p<.05). This implies that dyslexia, dysgraphia, dyscalculia, dyspraxia and overall learning disabilities had inverse relationship with self perception of primary school pupils. From the results, one also observes that significant positive relationship exist among the components of learning disabilities.

4.2.5 Research question four

To what extent do learning disabilities relate with pupils' perceptions of their school physical environment in Akwa Ibom State?

The results of the correlation matrix presented in Table 11, revealed, that while dysgraphia had a significant negative relationship with pupils' perception of school physical environment (r=-.104; p<.05), dyscalculia had a significantly positive relationship (r=.142; p<.05).

On the other hand, the relationship between the pupils' perception of school physical environment and dyslexia (r=.030; p>.05) and dyspraxia (r=-.048; p>.05) and overall learning disabilities (r=.029; p>.05) were not statistically significant. This implies that dyslexia, dyscalculia and overall learning disabilities had direct relationship with pupils' perceptions of their school physical environment while dysgraphia and dyspraxia had inverse relationship with pupils' perceptions of their school physical environment.

TABLE 10
Inter-correlation among learning disabilities and primary school pupils' perception of self in Akwa Ibom State (N=732)

Variables	1	2	3	4	5	6
Perception of self	1.000	.000	.000	.000	. 004	.000
Dyslexia	-.229*	1.000	.000	.000	.000	.000
Dysgraphia	-.169*	.354*	1.000	.000	.000	.000
Dyscalculia	-.146*	.403*	.198*	1.000	.000	.000
Dyspraxia	-.100*	.390*	.298*	.452*	1.000	.000
Overall learning disabilities	-.225*	.786*	.555*	.760*	.739*	1.000

*Significant at .05 level of significance.
(The p-values are above the leading diagonal)

TABLE 11
Inter-correlation among learning disabilities and primary school pupils' perception of school physical environment in Akwa Ibom State (N=732)

Variables	1	2	3	4	5	6
Perception of school physical environment	1.000	.211	.002	.000	. 097	.216
Dyslexia	.030	1.000	.000	.000	.000	.000
Dysgraphia	-.104*	.354*	1.000	.000	.000	.000
Dyscalculia	.142*	.403*	.198*	1.000	.000	.000
Dyspraxia	-.048	.390*	.298*	.452*	1.000	.000
Overall learning disabilities	.029	.786*	.555*	.760*	.739*	1.000

*Significant at .05 level of significance.
(The p-values are above the leading diagonal)

4.2.7 Research question five

In what ways do learning disabilities relate with pupils' perceptions of their school social environments in Akwa Ibom State?

The results of the correlation matrix presented in Table 12 revealed that dyslexia (r=-.281; p<.05), dysgraphia (r=-.161; p<.05), dyscalculia (r=-.248; p<.05), dyspraxia (r=-.145; p<.05) and overall learning disabilities (r=-.300; p<.05) had significant negative relationship with pupils' perception of school social environment. This implies that dyslexia, dysgraphia, dyscalculia, dyspraxia and overall learning disabilities had inverse relationship with primary school pupils' perception of school social environment.

4.2.9 Research question six

In what ways do learning disabilities relate with pupils' perception of their classroom instruction in Akwa Ibom State?

The results of the correlation matrix presented in Table 13 reveals that dyslexia (r=-.334; p<.05), dysgraphia (r=-.151; p<.05), dyscalculia (r=-.313; p<.05), dyspraxia (r=-.176; p<.05) and overall learning disabilities (r=-.356; p<.05) had significant negative relationship with the pupils' perception of classroom instruction. This implies that dyslexia, dysgraphia, dyscalculia, dyspraxia and overall learning disabilities had inverse relationship with perception of classroom instruction among the pupils.

TABLE 12
Inter-correlation among learning disabilities and primary school pupils' perception of school social environment in Akwa Ibom State (N=732)

Variables	1	2	3	4	5	6
Perception of school social environment	1.000	.000	.000	.000	.000	.000
Dyslexia	-.281*	1.000	.000	.000	.000	.000
Dysgraphia	-.161*	.354*	1.000	.000	.000	.000
Dyscalculia	-.248*	.403*	.198*	1.000	.000	.000
Dyspraxia	-.145*	.390*	.298*	.452*	1.000	.000
Overall learning disabilities	-.300*	.786*	.555*	.760*	.739*	1.000

*Significant at .05 level of significance.
(The p-values are above the leading diagonal)

TABLE 13
Inter-correlation among learning disabilities and primary school pupils' perception of classroom instruction in Akwa Ibom State (N=732)

Variables	1	2	3	4	5	6
Perception of classroom instruction	1.000	.000	.000	.000	.000	.000
Dyslexia	-.334*	1.000	.000	.000	.000	.000
Dysgraphia	-.151*	.354*	1.000	.000	.000	.000
Dyscalculia	-.313*	.403*	.198*	1.000	.000	.000
Dyspraxia	-.176*	.390*	.298*	.452*	1.000	.000
Overall learning disabilities	-.356*	.786*	.555*	.760*	.739*	1.000

*Significant at .05 level of significance.
(The p-values are above the leading diagonal)

4.2.4 Hypothesis one

Learning disabilities do not significantly predict primary school pupils' perception of self in Akwa Ibom State. The results of the multiple regression analysis presented in Table 14 showed that the combined contributions of the learning diabilities in predicting primary school pupils' perception of selfproduced an R coefficient of .254; and an adjusted (standardized) multiple R-square (R^2) of .060. The adjusted multiple R-square (R^2) of .060 implies that when the independent variables were taken together, they accounted for 6.0% of the total variance in the subjects, self-perception.

The result further showed that out of the five variables, three of them; dyslexia (Beta = -.177), dysgraphia (Beta = -.103) and overall learning disabilities (Beta = .170) significantly predicted the pupils' perception of themselves, while dyscalculia (Beta = -.068) and dyspraxia (Beta = .031) did not significantly predict the pupils' self-perception. The negative Beta values indicated that dyslexia, dysgraphia and dyscalculia inversely predicted the pupils' self-perception while dyspraxia and overall learning disabilities directly predicted pupils' self-perception.

4.2.6 Hypothesis two

Learning disabilities do not significantly predict primary school pupils' perceptions of their school physical environments in Akwa Ibom State. The results of the multiple regression analysis presented in Table 15 showed that the combined contributions of the learning disabilities in predicting pupils' perception of school physical environment produced an R coefficient of .220; and, an adjusted (standardized) multiple R-square (R^2) of .043.

TABLE 14

Multiple Regression Analysis showing the prediction of learning disabilities on primary school pupils' perception of self in Akwa Ibom State

Multiple R	=	.254
Multiple R^2	=	.065
Multiple R^2 (Adjusted)	=	.060
Standard Error of Estimation	=	2.605

Variables	B	Std. Error	Beta	t-value	p-level
(Constant)	25.419	.437		58.189*	.000
Dyslexia	-.327	.077	-.177	-4.219*	.000
Dysgraphia	-.339	.129	-.103	-2.627*	.009
Dyscalculia	-.130	.080	-.068	-1.621	1.06
Dyspraxia	.072	.099	.031	.728	.467
Overall learning disabilities	-.399	.137	.170	2.909*	.000

*Significant at .05 level of significance; $p<.05$.

Dependent variable: Primary school pupils' perception of self.

TABLE 15

Multiple Regression Analysis showing the prediction of learning disabilities on primary school pupils' perception of school physical environment in Akwa Ibom State

Multiple R	=	.220
Multiple R^2	=	.049
Multiple R^2 (Adjusted)	=	.043
Standard Error of Estimation	=	2.857

Variables	B	Std. Error	Beta	t-value	p-level
(Constant)	21.942	.479		45.786	.000
Dyslexia	.074	.085	.037	.866	.387
Dysgraphia	-.441	.142	-.122	-3.109*	.002
Dyscalculia	.428	.088	.205	4.854*	.000
Dyspraxia	-.302	.109	-.119	-2.783*	.006
Overall learning disabilities	.074	.085	.088	.853	.396

*Significant at .05 level of significance; p<.05.

Dependent variable: Primary school pupils' perception of school physical environment.

The adjusted multiple R-square (R^2) of .043 implies that when the independent variables were taken together, they accounted for 4.3% of the total variance in the subjects perception of school physical environment.

The result further showed that out of the five variables, three of them; dysgraphia (Beta = -.122), dyscalculia (Beta = .205) and dyspraxia (Beta = -.119) significantly predict the pupils' perception of their school physical environment; while dyslexia (Beta = .037) and overall learning disabilities (Beta = .088) did not significantly predict the pupils' perception of their school physical environment. The negative Beta values indicated that dysgraphia and dyspraxia had inversely predicted the pupils' perception of their school physical environments while dyslexia, dyscalculia and overall learning disabilities directly predicted the pupils' perception of their school physical environments.

4.2.8 Hypothesis three

Learning disabilities do not significantly predict primary school pupils' perceptions of their school social environments in Akwa Ibom State. The results of the multiple regression analysis presented in Table 16 showed that the combined contributions of the learning disabilities in predicting pupils' perception of school social environment produced an R coefficient of .323; and, an adjusted (standardized) multiple R-square (R^2) of .099. The adjusted multiple R-square (R^2) of .099 implies that when the independent variables were taken together, they accounted for 9.9% of the total variance in the pupils' perception of school social environment.

TABLE 16

Multiple Regression Analysis showing the prediction of learning disabilities on primary school pupils' perception of school social environment in Akwa Ibom State

Multiple R	=	.323	
Multiple R^2	=	.104	
Multiple R^2 (Adjusted)	=	.099	
Standard Error of Estimation	=	2.891	

Variables	B	Std. Error	Beta	t-value	p-level
(Constant)	24.701	.485		50.937*	.000
Dyslexia	-.423	.086	-.202	-4.913*	.000
Dysgraphia	-.244	.143	-.065	-1.702	.089
Dyscalculia	-.364	.089	-.167	-4.077*	.000
Dyspraxia	.077	.110	.029	.702	.483
Overall learning disabilities	-.514	.183	-.143	-2.805*	.005

*Significant at .05 level of significance; p<.05.

Dependent variable: Primary school pupils' perception of school social environment.

The result further showed that out of the five variables, three of them; dyslexia (Beta = -.202), dyscalculia (Beta = -.167) and overall learning disabilities (Beta = -.143) significantly predicted the pupils' perception of their school social environment while dysgraphia (Beta = -.065) and dyspraxia (Beta = .029) did not significantly predict the pupils' perception of their school social environment. The negative Beta values indicated that dyslexia, dysgraphia, dyscalculia and overall learning disabilities inversely predicted the pupils' perception of their school social environment while dyspraxia had directly predicted the pupils' perception of their school social environment.

4.2.10 Hypothesis four

Learning disabilities do not significantly predict primary school pupils' perceptions of their classroom instruction in Akwa Ibom State. The results of the multiple regression analysis presented in Table 17 showed that the combined contributions of the learning disabilities to the pupils' perception of classroom instruction produced an R coefficient of .388; and, an adjusted (standardized) multiple R-square (R^2) of .146. The adjusted multiple R-square (R^2) of .146 implies that when the independent variables were taken together, they accounted for 14.6% of the total variance in the pupils' perception of school social environment.

The result further showed that out of the five variables, three of them; dyslexia (Beta = -.246), dyscalculia (Beta = -.221) and overall learning disabilities (Beta = -.427) significantly predicted the pupils' perception of their school social environment, while dysgraphia (Beta = -.029) and dyspraxia (Beta = .029) did not significantly predict the pupils' perception of classroom instruction.

TABLE 17

Multiple Regression Analysis showing the prediction of learning disabilities on primary school pupils' perception of classroom instruction in Akwa Ibom State

Multiple R	=	.388
Multiple R^2	=	.151
Multiple R^2 (Adjusted)	=	.146
Standard Error of Estimation	=	2.634

Variables	B	Std. Error	Beta	t-value	p-level
(Constant)	19.948	.442		45.148*	.000
Dyslexia	-.482	.078	-.246	-6.150*	.000
Dysgraphia	-1.02	.131	-.029	-.783	.434
Dyscalculia	-.450	.081	-.221	-5.542*	.000
Dyspraxia	.072	.100	.029	.720	.472
Overall learning disabilities	-.392	.077	-.427	-4.219*	.000

*Significant at .05 level of significance; $p<.05$.

Dependent variable: Primary school pupils' perception of classroom instruction.

studies, dysgraphia was ranked third in prevalence, but the present finding indicated dysgraphia had the highest prevalence. It is important to note that the two previous studies were conducted in the same setting which is different from the setting of the present study. The difference in findings may be as a result of the different settings. It might be that the school system where the study was carried out was not engaging the pupils adequately with respect to writing thus not providing them with adequate opportunities to practice the art.

4.3.2 Pupils perception of self and school environment

The second research question was interested in establishing how the pupils perceived themselves, their classroom instruction and their school physical and social environment. The study results showed that, the pupils were moderately affected by their perception of the school physical environments with 86.5%; followed by perception of school social environments with 76.1% of the subjects; then overall perception of school environment with 74.9% the subjects; followed by self-perception with 71.9% of the subjects and finally, perception of classroom instruction with 62.2% the subjects. The survey data collected showed that the pupils have good and positive perceptions of all the sub-variables of the perception variable including their perception of self, their classroom instruction and their school physical and social environment.

This finding is in line with that of the finding by Biggs (2007) that pupils with learning disabilities perceived themselves to be less capable. It also agreed with the finding of the study by Diener and Dweck (2008) who reported that pupils with dyscalculia are nonchalant during mathematics lessons as they act in a way that

shows that they cannot influence the outcome of their learning. This is evidently negative self perception by pupils with dyscalculia, a form of learning disability. The present study indicates that the pupils have better perceptions of themselves, their classroom interaction and their school physical and social environments. It may have been so due to the effort of parents and teachers in helping the pupils to build positive self-concept as Palombo (2001) noted that when teachers and parents remain positive about the pupils and encourage them to success, the pupils' self-perception will be positively affected.

4.3.3 Learning disabilities and pupils' self perception in Akwa Ibom State

The result of the third research question revealed that dyslexia, dysgraphia, dyscalculia, dyspraxia and overall learning disabilities had significant negative relationship with pupils' self-perception indicating that higher level of dyslexia, dysgraphia, dyscalculia, dyspraxia and overall learning disabilities leads to lower self-perception. The first hypothesis sought to establish the influence of learning disabilities on the self-perception of the pupils. The result of testing this hypothesis indicated that the inter-correlation among the variables revealed that all the independent variables (dyslexia, dysgraphia, dyscalculia, dyspraxia and overall learning disabilities) had significant negative relationship with primary school pupils' self-perception.

The result also revealed that dyslexia, dysgraphia, dyscalculia, dyspraxia and overall learning disabilities when taken together, significantly predicted primary school pupils' perception of self with dyslexia, dysgraphia inversely predicted the pupils' self-perception while overall learning disabilities directly predicted the

pupils' self-perception. It was also observed that dyscalculia and dyspraxia had inversely and directly predicted the pupils' self-perception.

The finding of this study agrees with King (2006) who linked learning disabilities with level of self esteem and self worth. It also agrees with Green (2007) who posited that learning disabilities negatively affect feelings of well being among individual with learning disabilities. The outcome of this finding may be as a result of the effect of teachers' effort, parents' commitment and the setting which combine to help the pupils with learning disabilities to build a positive and healthy self-perception, which therefore nullifies the influence of learning disabilities in self-perception. Another reason that can be adduced for this outcome is the positive commitment of the pupils to education as Blum (2005) reported that pupils with learning disabilities but with a commitment to school have high self esteem.

4.3.4 Learning disabilities and pupils' perceptions of their school physical environment in Akwa Ibom State

The result of the fourth research question revealed that dysgraphia and dyspraxia had negative relationship with pupils' perception of their school physical environment implying that higher level of dysgraphia and dyspraxia leads to lower pupils' perception of their school physical environment. On the other hand, dyspraxia, dyscalculia and overall learning disabilities had positive relationship with pupils' perception of their school physical environment implying that higher level of dyspraxia, dyscalculia and overall learning disabilities leads to higher pupils' perception of their school physical environment

The result of testing the second hypothesis revealed that dyslexia, dysgraphia, dyscalculia, dyspraxia and overall learning disabilities when taken

together, significantly predicted pupils' perception of school physical environment with dysgraphia and dyspraxia inversely predicted the pupils' perception of school physical environment while dyscalculia, dyslexia and overall learning disabilities directly predicted the pupils' perception of school physical environment.

This finding corroborated an earlier assertion by National Joint Committee on Learning Disabilities (2005) that pupils with learning disabilities perceive the school environment from different perspectives. This finding is critical as it has implications for learning. For instance, in a study by Edgerton, McKechnie and McEwen (2016), it was reported that students' perception of their school physical environment is linked to the way they interact with the environment and these have influence on key education outcomes. More so, Stice (2002; 2005) reported a link between a healthy school physical environment and important indices of measuring school success of children with learning disabilities including academic achievement, morale etc.

4.3.5 Learning disabilities and pupils' perceptions of their school social environments in Akwa Ibom State

The result of the fifth research question revealed that dyslexia, dysgraphia, dyscalculia, dyspraxia and overall learning disabilities had significant negative relationship with the pupils' perception of their school social environment implying that higher level of dyslexia, dysgraphia, dyscalculia, dyspraxia and overall learning disabilities leads to lower perception of school social environment among the pupils. The third hypothesis revealed that dyslexia, dysgraphia, dyscalculia, dyspraxia and overall learning disabilities when taken together, significantly predicted the pupils' perception of school social environment with dyslexia,

dyscalculia, dysgraphia and overall learning disabilities inversely predicted the pupils' perception of their school social environment while dyspraxia directly predicted the pupils' perception of their school social environment.

This finding is in concordance with Joint National Committee on Learning Disabilities (2005) that any interaction with pupils with learning disabilities which portrays prejudicial and derogatory behaviours will result to creating impressions and making inferences that weaken the ties of the pupils with learning disabilities with the school hence reducing their enthusiasm for learning. Additionally, Obani (2006) portrayed the influence of learning disabilities on perception of social environment when he asserted that a change in teachers' attitude towards pupils with learning disabilities will be perceived by them and will lead to more tension and mental stress on these pupils.

This finding of the present study is also in agreement with Brooks and Goldstein (2002) and Brooks (2000) who while admonishing teachers to always ensure a positive teacher-student relationship posited that pupils with learning disabilities often feel lost and frightened due to their suffering years of despair, frustration and discouragement. The implications of this finding to the school system have been variously established. Hoover and Olson (2000) reported the outcome of their study as indicating that pupils with learning disabilities who attended schools with a positive and respectful climate were able to focus on learning and realize their academic, interpersonal and athletic potential. Similarly, Stein (2005) postulated that a positive and respectful school climate provides a solid foundation for supporting learning disabled pupils' academic achievement and development of positive attitudes and behaviours.

4.3.6 Learning disabilities and pupils' perceptions of classroom instruction in Akwa Ibom State

The result of the sixth research question revealed that dyslexia, dysgraphia, dyscalculia, dyspraxia and overall learning disabilities had significant negative relationship with pupils' perception of classroom instruction implying that higher level of dyslexia, dysgraphia, dyscalculia, dyspraxia and overall learning disabilities leads to low pupils' perception of classroom instruction. The fourth hypothesis revealed that dyslexia, dysgraphia, dyscalculia, dyspraxia and overall learning disabilities when taken together, significantly predicted the pupils' perception of school social environment with dyslexia, dysgraphia, dyscalculia and overall learning disabilities inversely predicted the pupils' perception of their school social environment while dyspraxia directly predicted the pupils' perception of their school social environment.

This agrees with Scott, Leach and Bulcholz (2008) who, while evidently referring to the influence of learning disabilities on perception of classroom instruction, posited that the ability to accept and create a classroom environment that children with learning disabilities feel responsible and involved in learning is a major achievement in educational development of children with learning disabilities. The finding of this study has implications for the teaching-learning process as the pupils' perceptions of the adaptations teachers make to meet their learning needs determine their overall success in the classroom.

The finding of this study also concurs with that of the study by Margalit (2001) and Margalit and Ben-Dov (2015) which stated that the classroom environment that is most conducive to failure is the one in which the child's academic problem is ignored during instructional delivery. This implies that the

way pupils with learning disabilities view instructional practices in the classroom determines how well they make progress in the classroom. In other words, the type of classroom environment that a teacher creates and encourages can either increase or decrease the ability of a pupil with learning disabilities to learn and feel comfortable as a member of the class.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

This chapter discusses the summary of the entire work and conclusion based on the findings of the research. The chapter is presented under the following subheadings:

5.1 Summary of the study

5.2 Conclusion

5.3 Recommendations

5.4 Suggestions for further research

5.1 Summary of the study

This study was aimed at finding out in the first place, the type of learning disabilities prevalent among primary school pupils in Akwa Ibom State, and in the second place, establishing the potency of learning disabilities in predicting pupils' perceptions of themselves and their school environment. Three theories provided the framework in which the study was anchored. These were the Kurt Lewin's Field Theory (1946), Cognitive Learning Theory by Max Wertheimer (1942) and Carl Roger's theory of personality (1959). Literature review was done based on the variables involved in the study. The study adopted a survey research design, and was situated in Akwa Ibom state, Nigeria. The population of the study consisted of 153,107 primary five pupils in all public primary schools in Akwa Ibom State. The subjects were made up of 740 primary five pupils selected through the use of stratified random sampling technique.

A researcher-developed questionnaire titled Learning Disabilities and Perception Battery (LDPB) was used in data collection. The LDPB had a total of 50 items which covered all the variables and sub-variables of the study. This instrument was face and content validated by five experts in different disciplines including Test and Measurement, Special Education, Educational Psychology and Research, Measurement and Evaluation. The reliability of the instrument was

A researcher-developed questionnaire titled Learning Disabilities and Perception Battery (LDPB) was used in data collection. The LDPB had a total of 50 items which covered all the variables and sub-variables of the study. This instrument was face and content validated by five experts in different disciplines including Test and Measurement, Special Education, Educational Psychology and Research, Measurement and Evaluation. The reliability of the instrument was established using the Cronbach alpha statistics and this ranged from 0.669 to 0.738.

The following six research questions were answered in the study using percentages.

1. What types of learning disabilities are prevalent among primary school

A researcher-developed questionnaire titled Learning Disabilities and Perception Battery (LDPB) was used in data collection. The LDPB had a total of 50 items which covered all the variables and sub-variables of the study. This instrument was face and content validated by five experts in different disciplines including Test and Measurement, Special Education, Educational Psychology and Research, Measurement and Evaluation. The reliability of the instrument was established using the Cronbach alpha statistics and this ranged from 0.669 to 0.738.

The following six research questions were answered in the study using percentages.

1. What types of learning disabilities are prevalent among primary school pupils in Akwa Ibom State?
2. What proportions of primary school pupils in Akwa Ibom State have healthy perceptions of themselves and their school environment?
3. To what extent do learning disabilities relate with pupils' self perception in Akwa Ibom State?
4. To what extent do learning disabilities relate with pupils' perceptions of their school physical environment in Akwa Ibom State?
5. In what ways do learning disabilities relate with pupils' perceptions of their school social environments in Akwa Ibom State?
6. In what ways do learning disabilities relate with pupils' perception of their classroom instruction in Akwa Ibom State?

A total of four hypotheses were tested in the study, using the Multiple Linear Regression Analysis. The hypotheses include:

1. Learning disabilities do not significantly predict primary school pupils' perception of self in Akwa Ibom State.
2. Learning disabilities do not significantly predict primary school pupils' perceptions of their school physical environments in Akwa Ibom State.
3. Learning disabilities do not significantly predict primary school pupils' perceptions of their school social environments in Akwa Ibom State.
4. Learning disabilities do not significantly predict primary school pupils' perceptions of their classroom instruction in Akwa Ibom State.

The results of the data analyzed indicated the following:

1. The four learning disabilities showed that dyspraxia was the most prevalent highly affecting 77.9% of the children; followed by dyscalculia that highly affected 65.8% of the subjects; then dyslexia that highly affected 49.9% the subjects and finally, dysgraphia that highly affected 10.4% the subjects. Finally, learning disabilities affected 38.4% of the males, 38.6% of the females and 38.5% the total group. This implies that learning disabilities is slightly prevalent among the females than the males.
2. The pupils have good and positive perceptions of all the sub-variables of the perception variable including their perception of self, their classroom instruction and their school physical and social environment. The pupils were moderately affected by their perception of the school physical environments with 86.5%; followed by perception of school social environments with 76.1% of the subjects; then overall perception of school environment with 74.9% of the subjects; followed by self-perception with

71.9% of the subjects and finally, perception of classroom instruction with 62.2% of the subjects.

3. The inter-correlation among the variables revealed that all the independent variables (dyslexia, dysgraphia, dyscalculia, dyspraxia and overall learning disabilities) had significant negative relationship with the pupils' self-perception. The more of learning disabilities pupils had, the less they perceived self. Also, learning disability variables when taken together, significantly predicted the pupils' perception of self with dyslexia, dysgraphia having inverse significant prediction on the pupils' perception of themselves while overall learning disabilities had direct significant prediction on the primary school pupils' perception of themselves, and dyscalculia and dyspraxia having inverse and direct prediction on the primary school pupils' perception of themselves which was not statistically significant..

4. Dysgraphia had significant negative relationship with pupils' perception of their school physical environment while dyscalculia had significant positive relationship with pupils' perception of their school physical environment. Dyspraxia had a negative relationship with pupils' perception of their school physical environment which was not statistically significant. On the other hand, dyslexia and overall learning disabilities had positive relationship with pupils' perception of their school physical environment which was also not statistically significant. Also, the independent variables when taken together, significantly predicted the pupils' perception of school physical environment with dysgraphia and dyspraxia inversely predicted the pupils' perception of

school physical environment while dyscalculia directly predicted the pupils' perception of school physical environment and dyslexia and overall learning disabilities did not significantly predict the primary school pupils' perception of their school physical environment.

5. Dyslexia, dysgraphia, dyscalculia, dyspraxia and overall learning disabilities had significant negative relationship with the pupils' perception of their school social environment. Learning disability variables when taken together, significantly predicted primary school pupils' perception of school physical environment with dyslexia, dyscalculia and overall learning disabilities having inverse significant prediction on the primary school pupils' perception of their school social environment while dysgraphia and dyspraxia had inverse and direct prediction on primary school pupils' perception of their school social environment but was not statistically significant.

6. Dyslexia, dysgraphia, dyscalculia, dyspraxia and overall learning disabilities had significant negative relationship with pupils' perception of classroom instruction. Learning disability variables when taken together, significantly predicted primary school pupils' perception of school social environment with dyslexia, dyscalculia and overall learning disabilities having inverse significant prediction on the primary school pupils' perception of their school social environment while dysgraphia and dyspraxia had inverse and direct prediction on the primary school pupils' perception of their school social environment which was not statistically significant.

5.2 Conclusion

This study was focused on establishing if learning disabilities are prevalent among primary school pupils in Akwa Ibom State, and if they are predictive of individual self-perception and perceptions of their school physical and social environments, as well as perception of their classroom instruction.

It can be deduced from these findings that the pupils' self-perception is a function of their learning disabilities, which also implies that such self-perception does not depend on learning disabilities. However, the findings of the study also indicated that the perceptions of the pupils with respect to their physical school environment, their social environment and their classroom instruction are influenced by learning disabilities.

5.3 Recommendations

Taking cognizance of the findings of this study, the following recommendations were made to the different stakeholders in the education process to improve the overall outcome of education:

1. Teachers, school psychologists and counsellors should devise deliberate strategies to defeat completely the incidence of learning disabilities among pupils in primary schools.
2. Teachers, parents and other stakeholders in the educational system should expose the pupils to programmes aimed at boosting their positive self-perception. This would enhance their self-esteem with its multiplicity of advantages to the pupils.

3. Policy makers in education should enact policies that would ensure exposing the pupils regularly to psychological testing and keeping records of such testing for guidance.
4. School administrators should expand their considerations for teachers and guidance counsellors in their professional role and assessment of learning with respect to clinical records on areas of learning disabilities of the pupils.
5. There should be emphasis on keeping the clinical records of the pupils as this would facilitate therapeutic interventions where necessary.
6. There should be adequate public enlightenment on learning disabilities for stakeholders.
7. The findings of this study have also sent out a clarion call to all in the education terrain and beyond, not only on the prevalence of pupils with learning disabilities but the significance of creating a conducive environment for them to maximize their potentials.

5.4 Suggestions for further research

1. A similar study should be carried out in other States in the Geopolitical zone for generalization.
2. A finding of this study pointed to learning disabilities as predicting pupils' perception of their school physical and social environment; future research could be conducted to explore strategies for making a good and positive use of the relationship between learning disabilities and pupils' perception of the school environment.

REFERENCES

American Psychiatric Association (2013). *Review of Diagnostic and Statistical Manual of Mental Disorders. 4th ed.* Washington, DC: American Psychiatric Association

Aronli, W. I. (2013). Teacher talk during whole-class lessons. Engagement strategies to support verbal participation by students with learning disabilities. *Learning Disabilities Research & Practice*, *21*(4) 21-233.

Avissar, V. (2000). *The inclusive classroom: Educating exceptional children.* Scarborough: Nelson Education.

Avramidis, J., & Norwich, E. (2002). Visual factors in reading. *London Review of Education, 4*, 89-98.

Bandura, H. C. & Barbaranelli, E. (2001). Addition and subtraction by human infants. *Nature, 358*(6389), 749-751.

Baron, M. (2000). Diagnosis of attention-deficit hyperactivity disorder in adult life. Child and adolescent. *Psychiatry Clinics of North America, 1(2):325-334*

Bendova, P., & Petrikova, M. (2015). The risk of developing specific learning difficulties in children age 5 – 7 years in the Czech Republic. Retrieved from www.library.taled.org

Bhuda, T., & Dande K.D. (2007). An investigation of difference scores for a grade level testing program. *International Journal of Testing, 2*(2), 83-105.

Biggs, B. C. (2007). Inclusive schools and gifted students and educational reform. *Teaching Exceptional Children, 26*(3) 64-68.

Bluestein, J. (2001) Creating Emotionally Safe Schools. Deerfield Beach, FL: Health Communications, Inc.

Blum, S. (2002). The fairness of school safety: What do students with and without learning disabilities think? *Remedial and Special Education, 20*(2), 84-92.

Blum, S. (2005). Normalizing difference in inclusive school environment. *Journal of Learning Disabilities, 37*, 525-529.

Boateng, B. H., & Jasi O. (2002). Diagnosis and assessment of mathematics learning disabilities. In G. R. Lyon, (Ed). *Frames of reference for the assessment of learning disabilities: New views on measurement issues.* pp. 441–58. Baltimore: Paul H. Brookes

Bong, W., & Skaalvik, D. Y. (2003). Inclusive education on the 21st century. Challenges and Opportunities for Nigeria. *Asia Pacific Disability Rehabilitation Journal, 14*(2) 45-67.

Booster, U., Cox, O., & Kuff, D. I. (2009). Perceptions of academic strategies and competence in students with learning disabilities. *Journal of Learning Disabilities, 31*(1), 437-451.

Bowe, B. (2005). Assessing problem-based learning: A case study of a physics problem-based learning course. S: //scholar . google. Com

Brendtro, E. (2001). Sex differences and personality factors related to persuasibility. In C. Hovland & LL. Janis (Eds.), *Personality and persuasibility,* (pp. 300-302). New Haven, CT: Yale University Press.

Brookhart, D. F. (2004). Reciprocal influences of victimization, perceived social preferences, and self concept in adolescence. *Self and Identity, 5*, 209-229.

Brooks, E. (2000). Advances in early years screening for dyslexia in the America. *Annals of Dyslexia, 48*, 57-88.

Brooks, E., & Goldstein, C. (2002). Assessment of attention deficit disorder and hyperactivity. In C. L. Frame and J. L. Matson (Eds.). *Handbook of Assessment in Childhood Psychology.* New York: Plenum.

Brunner, R. H. (2009). Locus of control and avoidant coping: Direct, interactional and meditational effects on maladjustment in adolescents. *Personality and Individual Differences, 24*, 325-334.

Budar, S. F. (2007). Learning disabilities research: False starts and broken promises. In S. Vaughn and C. B (Eds.). Diego *Research in learning disabilities: Issues and future directions* (pp. 69-85). CA: College Hill Press.

Bustern, G. T. (2007). *Methods for effective teaching.* Boston, MA : Allyn and Baco

Cash, L. O.,& Morrow, F. C. (2004). Self-motivation for academic attainment: The role of self-efficacy beliefs and personal goal setting. *American Educational Research Journal, 29*, 663-676.

Cash, S., & Pruzinsky, Z. I. (2002). Children with learning disabilities within the family context: A comparison with siblings in global self-concept, academic self-perception, and social competence. *Learning Disabilities Research &Practice, 18, 1-9.*

Cash, S., Maikkula, B., & Yamamiya, V. H. (2004). School-based interventions to enhance the self concept of students with learning disabilities: A meta-analysis. *The Elementary School Journal, 101*, 303-329.

Cash, S., Morrow, V. C., Hrabosky, F., & Perry, C.G. (2004). Self-concept and self-esteem development. In G. R. Adams & M. D. Berzonsky (Eds.), *Blackwell handbook of adolescence* (pp. 290 309). Malden, MA: Blackwell.

Center for Social and Emotional Education, (2005). *The clinical child interview.* New York: Guilford Press.

Chika, V. L. (2004). *Keeping ahead in school: A student's book about learning disabilities.* Cambridge, MA: Educators Publishing Services, Inc.

Conway, C. C. (2004). Age and gender differences in global, academic, social and athletic self-concepts in academically talented students. *Paper presented at the Annual Meeting of the American Educational Research Association*: Chicago.

Craven, E., Marsh, H., & Burnett, R. T. (2003). *Learning disabilities and challenging behaviours: A guide to Intervention and Classroom Management.* Baltimore, MD: Paul H. Brooks Publishing Co.

Dembo, T., & Leviton, J. J. (2008). Developmental dyscalculia and basic numerical capacities: a study of 8-9 year-old students. *Cognition, 93*(2), 99-125.

Department of Education Office of Civil Rights (2007). Similarities and differences in domainspecific and global self-evaluations of learning-disabled, behaviourally disordered, and normally achieving adolescents. *American Educational Research Journal, 35*, 553-680.

Department of Special Education, University of Calabar (2015). Assessment and identification of pupils with disabilities in schools.

Diener, R. G.,& Dweck, N. (2008). *Learning from difference: Sharing international experiences of developments in inclusive education.* Florida: Cafii Press.

Dolan, C., Birtchnell, G. U., & Lacey, F. T. (2007). Family communication and children's learning disabilities: Evidence for Cole's theory of inter activity. *Journal of Learning Disabilities, 23*, 145-148.

Drench, E. F. (2004). The dimensionality of self-esteem: Hierarchical facet model for revised measurement scales. *Journal of Personality and Social Psychology, 46, 404-421.*

Duncan, G. J., Dowsett, C. J., Claessens, A., Magnuson, K., Huston, A. C., & Klebanov, P. (2007). School readiness and later achievement. *Developmental Psychology, 43*(6), 1428-1446.

Edgerton, E., Mckechnie, J., & McEwen, S. (2016). Students' perceptions of their school environments and the relationship with educational outcomes. (online).

Edwards, O. W., Mumford, V. E., & Serra-Roldan, R. (2007). A positive youth development model for students considered at-risk. *School Psychology International, 28*(1), 29-45.

Eisenberg, N. (2006). Computerized assessment of reading. In J. R. Sesh and C.H. Singol (Eds.) *The psychological assessment of reading and writing disabilities* (pp. 257-278). London: Routledge.

Farrel, F. F. (2003). An evaluation of Wordshark in the classroom. *British Journal of Educational Technology, 32*, 317-330.

Federal Ministry of Women Affairs and Social Development (2011). Baseline survey on persons with disabilities.

Federal Republic of Nigeria (2008). *National Policy on Education.* Abuja: NERDC.

Felder, I., & Silverman, K. (2008). *The learning mystique: A critical look at learning disabilities*. New York: Pantheon Press.

Ferreira, A. C., & Guimarães J. L. (2003). For which students with learning disabilities are self-concept interventions effective? *Journal of Learning Disabilities, 36*, 101-108.

Ferreira, A. C. (2005). Teacher-assessed behaviour configurations, peer-assessments, and self-concepts of elementary students with mild disabilities. *The Journal of Special Education, 33*, 66-80.

Fleming, C. B., Harachi, T. W., Cortes, R. C., Abbott, R. D., & Catalano, R. F. (2004). Level and Change in Reading Scores and Attention Problems During Elementary School as Predictors of Problem Behaviour in Middle School. *Journal of Emotional and Behavioural Disorders, 12*(3), 130-144.

Folkman, G., & Moskowitz, C. Z. (2004). Putting inclusion into practice, perspectives of teachers and parents' exceptional children. *Journal of Learning Disabilities, 28*(8) 51-62.

Gargiulo, R. (2004). Young children with Special Needs, New York: Thomas Delmar Learning.

Garnett, K. (2010). What are classrooms like for students with learning disabilities? Retrieved from https://www.readingrockets.org/article/what-are-classrooms-students-learning-disabilities

Gent, K., & Monaco, F. (2003). The socio- metric status of students with disabilities in full inclusion school. Journal of Exceptional Children 62, 78-88.

Gettinger, M., & Ball, C. (2008). Best practices in increasing academic engaged time. In A. Thomas & J. Grimes (Eds.), *Best practices in school psychology V* (pp. 1043-1058). Bethesda, MD: National Association of School Psychologists.

Ghado, K., & Jiri, S. (2004). Executive Skills in Children and adolescents: A practical guide to assessment and intervention. New York, NY: The Guilford Press.

Gherasim, E. F., Butnaru, G.,& Mairean, J. E. (2013). Gender variables and mathematics education. *Elementary School Journal, 84,* 558-581.

Giangreco, U. O., & Doyle, H. (2007). *All kinds of minds: A young student's book about learning abilities and learning disorders.* Cambridge, MA: Educators Publishing Services, Inc.

Glew, G. M., Fan, M. Y., Katon, W., Rivara, F. P., & Kernic, M. A. (2005). Bullying, psychosocial adjustment, and academic performance in elementary school. *Archives of Pediatrics and Adolescent Medicine, 159*, 1026-1031.

Green, D. F. (2007). Early reading-related skills and performance, reading self-concept, and the development of academic self-concept: A longitudinal study. *Journal of Educational Psychology, 92*, 703-708.

Grow, W. (2001). Fraction instruction for students with mathematical Disabilities: Comparing two teaching sequences. *Learning Disabilities Research & Practice, 1,* 99-111

Hallahan, A., & Kauffman, D. (2003). Field-dependent and field-independent cognitive styles and their educational implications. *Review of Educational Research, 47*, 1-64.

Hallahan, A., Kauffman, D., & Lloyd, S. F. (2004). Learning disabilities: Historical and conceptual issues. In B. Y. L. Wong, (ed.). *Learning about learning disabilities* (pp. 3-39). New York: Academic Press.

Herman, K. C., Lambert, S. F., Reinke, W. M., & Ialongo, N. S. (2008). Low academic competence in first grade as a risk factor for depressive cognitions and symptoms in middle school. *Journal of Counseling Psychology, 55*(3), 400-410.

Heyman, W. B. (1990). Disability and its relationship to academic self concept and self esteem. Vol. 23, No. 8, Oct. (check tab 10.1.8...628 pdf)

Hill, S. E. (2007). *A guide for parents and teachers.* Englewood Cliffs, NJ: Prentice Hall.

Hoover, A. D., & Oliver, M. (2006). Social sensitivity in adolescents and adults with learning disabilities. *Adolescence, 27*, 977-988.

Hoover, A. D., & Olson, C. (2000). A multifaceted academic self-concept: Its hierarchical structure and its relation to academic achievement. *Journal of Educational Psychology, 80*, 366-380.

Horgan, L. & MacLachlan, W. (2004). Overcoming low self-esteem: A cognitive behavioural approach. *Stress News,* 14, 7-11.

Hugh, D. F. (2006). Do children use similar processes to read and spell words? *Journal of Experimental Child Psychology, 39*(3), 511-530.

Hunt, D. J., & Marshall, C. (2005). IQ is irrelevant to the definition of learning disabilities: A position in search of logic and data. *Journal of Learning Disabilities, 22*, 504-19.

Hymel, S., Schonert-Reichl, K. A., & Miller, L. D. (2006). Reading, 'riting, 'rithmetic and relationships: Considering the social side of education. *Exceptionality Education Canada,16*(3), 1-44.

Idaka, E. I., & Anagbogu, G. E. (2012). Research design. In A. J. Isangedighi (Ed.), *Essentials of Research and Statistics in Education and Social Sciences* (pp. 64-77). Calabar: Eti-Nwa Associates.

Igwue, F., & Ashami, E. E. (2013). Issues in the definition and classification of dyslexia. *Topics in Language Disorders, 14*, 1-25.

Individuals with Disabilities Education Act (IDEA) (2004). www.wikipedia.org

Isangedighi, A. J. (2007). *Child psychology: Development and education.* Calabar: Eti- Nwa Associates.

Isangedighi, A. J. (2011).Learning disabilities. In A. J. Isangedighi (Ed) *Essentials of Learning*. Calabar: Eti Nwa Associates.

Jacobsen, R. G. (2007). Learning disabled children's self-concepts. *Review of Educational Research, 58*, 347-371.

Jones, O.,& Young, M. (2005). Generalized expectancies for internal versus external control of reinforcement. *Psychological Monographs, 80*, 1-28.

Kayode, D. (2005). Teacher ratings of DSM-III-R symptoms for the disruptive behaviour disorders. *Journal of American. Academic and Child Adolescent Psychiatry, 31*(2), 210-218.

Kedrini, F. I. (2006). *Self-perception profile for learning disabled students*. Denver, Co: University of Denver.

Kerb, F., & Kane, G.V. (2009). Teaching the child. *Journal of Teaching and Learning, 7*(1) 4-11.

King, K. O. (2006). Measures of self-esteem. In J. P. Robinson, P. R. Shaver, and L. S. Wrightsman (Eds.). *Measures of a personality and social psychological attitudes* (pp. 115-160). New York: Academy.

views on research and their implications for education and public policies (pp. 273-307). Baltimore: Paul H. Brookes.

Marsh, H. (2005). A study of the effects of an inclusion model on students with specific learning disabilities. *Journal of Learning Disabilities, 28*(8) 511-522.

McIntosh, K., Chard, D. J., Boland, J. B., & Horner, R. H. (2006). Demonstration of combined efforts in school-wide academic and behavioural systems and incidence of reading and behaviour challenges in early elementary grades. *Journal of Positive Behaviour Interventions*, *8*(3), 146-154.

McIntosh, K., Flannery, K. B., Sugai, G., Braun, D. H., & Cochrane, K. L. (2008). Relationships between academics and problem behaviour in the transition from middle school to high school. *Journal of Positive Behaviour Interventions, 10*(4), 243-255.

McIntosh, K., Horner, R., Chard, D., Dickey, C., & Braun, D. (2008). Reading skills and function of problem behaviour in typical school settings. *Journal of Special Education. 42*, 131-147.

McLeod, F. (1992). Friendship as an educational goal: What we have learned and where we are headed. In W. Stainback, and S. Stainback, (Eds.). *Inclusion: A guide for educators* (pp. 34-56). Baltimore: Paul H. Brookes Publishing Co.

Megan, W., & Marshall, H. (2002). Big-fish-little-pond effect on academic self-concept. *German Journal of Educational Psychology,* 19, 119-127.

Mogasale, V. V., & Patil, V. D. (2012). Prevalence of specific learning disabilities among children in South Indian City. Retrieved from www.ncbi,nlm.nih.gov/pubmed/21887581.

Moller, E. N. (2009). *Functional assessment of academic behaviour: Creating successful learning environments.* Longmont, Co: Sopris West Educational Services.

Moreira, B. B. G., Martins-Reis, V. O., & Santos, J. N. (2016). Self-perception of learning difficulties for students of fundamental education. *Audiology - Communication Research, 21*, e1632, doi: 10.1590/2317-6431-2015-1632.

Mujis, A. A. (2007). *Assessing students with special needs (6th ed.).* Upper Saddle River, NJ: Merrill Prentice Hall.

National Association of Special Education Teachers (2013).*The manual of disabilities*. Maidenhead: Peter Honey.

National Joint Committee on Learning Disabilities, (2005). *Learning disabilities.* York: Guilford Press.

Nnachi, R. O. (2003). Causes, consequences and control of behaviour problems among Nigerian children. In Nnachi, R. O. and Ezeh, P. S. E. (Eds.). *The behaviour problems of the Nigerian Child.* Awka: The Nigerian Society for Educational Psychologists (NISEP).

Noles, D., Cash, S., & Winstead, I. (2005). Ability self-perceptions and subjective task values in adolescents body image. In More, K. A. & Lippman, L.H. (Eds.), *What do children need to flourish: Conceptualizing and measuring indicators of positive development* (pp. 237-249). New York, NY: Springer Science + Business Media.

Nunez, A. (2005). What are executive functions and self-regulation and what do they have to do with language learning disorders? *Language, Speech and Hearing Services in Schools, 1*(30) 265-273.

Obani, C. T. (2006). Teaching the learning disabled in the regular UBE schools and classrooms. In T. C. Obani (ed) Teaching pupils with special needs in regular UBE classrooms. Ibadan: Olubem printers.

Odei, R., Saimo Y. I., & Kedira, S. (2010). Numerical abstraction by human infants. *Cognition, 36*(2), 97-127.

Odonwan, D., & Kushi, L. I. (2010). Using computer-based assessment to identify learning problems. In L. Florian and J. Hegarty (Eds.) *ICT and Special Educational Needs* (pp. 46-63). Milton Keynes: The Open University Press.

Okachi, B. N. (2006). The right and wrong places to look for the cognitive locus of reading disability. *Annals of Dyslexia,* 38, 154-177.

Orim, S. O., & Uko, F. U. E. (2017). Prevalence of specific learning disabilities and its management among pupils' in Calabar Educational Zone, Cross River State. Proceedings of ADVED, 3rd International Conference on Advances in Education and Social Sciences. 9 – 11 Oct. 2017, Istanbaul, Turkey.

Osuorji, P. I. (2013). Assessment needs on learning disabilities for inclusive education in Nigeria. *The Exceptional Child, 15*(1), 133-142.

Palombo, E. R. (2001). *The educator's diagnostic manual of disabilities and disorders.* San Francisco.

Pavri, S., & Luftig, C. G. (2000). Cognitive profiles of reading disability: Comparisons of discrepancy and low achievement definitions. *Journal of Educational Psychology, 85,* 1-18.

Pieyet, T., & Pieyet, C. D. (2008). *Curriculum-based evaluation, teaching and decision making.* Scarborough, ON: Wadsworth/Thomson Learning.

Rivera, I. I. (2007). Toward a definition of dyslexia. *Annals of dyslexia,45*, 3-27.

Scott, P., Leach, Z., & Bucholz, C. H. (2008). Dyslexia and oral reading errors. *Journal of Research in Reading, 28*(1), 4-14.

Silverman, G., & Zigman, A. E. (2003). Reciprocal influences of victimization, perceived social preferences, and self-concept in adolescence. *Self and Identity, 5*, 209-229.

Skidmore, F. B. (2004). Visual stress in adults with and without dyslexia. *Journal of Research in Reading, 28*, 365-378.

Smith, B. (2009). The Ambiguity of Play. London. Harvard University Press.

Solomon, C., Zaichkowsky, F. I., & Polegato, D. (2005). Self-evaluation and social comparison amongst adolescents with learning disabilities. *Journal of Community &Applied Social Psychology, 11*(5), 347-359.

Spanais, E. (2009). Measures of self-esteem. In J. P. Robinson, P. R. Shaver, & L. S. Wrightsman (Eds.). *Measures of a personality and social psychological attitudes* (pp. 115-160). New York: Academic.

State Universal Basic Education Board (SUBEB), Akwa Ibom State, Nigeria, West Africa.

Stein, C. (2005). Learners' beliefs about school safety. *Remedial and Special Education, 22*(4), 245-255.

Stice, C. V. (2002). Comparing the self-concept of students with and without learning disabilities. *Journal of Learning Disabilities, 36*, 285-293.

Stice, C. V. (2005). The effects of participation in a STEP program on parents' child-rearing attitudes and the school environment perception of their learning disabled children. *Exceptional Child Psychology, 28*, 183-190.

Stronge, C. R. (2002). Measurement mischief: a critique of Reynolds, Nicolson and Hambly *Dyslexia: An International Journal of Research and Practice, 9*, 151-160.

Swanson, E. R. (2009). *Handbook of learning disabilities: A multi-system approach.* Boston, MA: Allyn and Bacon.

Thorndike, R. (1920). *Adolescent psychology.* London: Longman.

Tresemester, E. (2003). Young children's causal attributions for success and failure: "self-enhancing boys" and "self-derogating girls". *British Journal of Developmental Psychology, 11, 125-129.*

Udensi, P., & Prarel, I. L. (2004). Dyslexia: Cognitive factors and implications for literacy. In G. Reid and J. Wearmouth (Eds.) *Dyslexia and literacy: Research and practice* (pp. 115-130). London: Wiley.

UNESCO (1994). *The Salamanca Statement and framework for action in special needs education.* Salamanca: UNESCO.

US Department of Education (2008). *Implementation of the education of the handicapped Act: Eleventh annual report to Congress.* Washington, DC: U.S. Department of Education

US Department of Education, (2000). *To assure the free appropriate public education of all children with disabilities.* Twenty-third Annual Report to Congress on the Implementation of the Individuals with Disabilities Education Act. Washington, DC: Author.

Vaughn, S., Hogan, L. I., & Shapiro, L. (2000). Screening for early literacy. In J. R. Beech and C. H. Singleton (Eds.) *The psychological assessment of reading* (pp. 67-101). London: Routledge.

Wainscot, H. Y. (2008). Computer-based assessment in education. *Educational and Child Psychology, 18*, 58-74.

Wald, D. R. (2004). Assessment of learning disabled students' academic self-concepts with the PASS: Findings from 15 years of research. *Developmental Disabilities Bulletin, 19*, 81-104.

Wikipedia, the free encyclopaedia https://en.wikipedia.org>wiki>Retrived online Jan.2016.

Zeldin, S., & Pajares, F. (2000). *Manual of the self-perception profile for children.* Denver, CO: University of Denver.

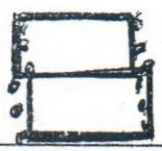
BATTERY FOR IDENTIFYING LEARNING DISABILITIES (LD), AND PERCEPTION (P) (LDPB)

PART I: PERSONAL DATA OF THE RESPONDENT

1. NAME OF YOUR SCHOOL.....

1. SEX: MALE ( ) FEMALE ( ) TICK THE CORRECT ONE
2. CLASS: ..... 4. AGE:.....
3. PART B GENERAL INSTRUCTION: Please follow the instruction in each unit.

PART II: INFORMAL IDENTIFICATION PROCEDURE FOR STUDENTS WITH LEARNING DISABILITIES

Areas of assessment	Item Number	Items
Section A Dyslexia (Reading disorder)	1- 5	**Read the following words.** 1. raid, led; 2. flog, frog; 3.van, fan; 4. price, prize; 5. pat, bat
Section B Dysgraphia (Handwriting disorder)	6. 7. 8. 9. 10.	**Copy these on the lines beside each sentence** Come down quick! Gosh! Really? Akwa Ibom State I like oranges. Write your name here ➡
Section C Dyscalculia (Arithmetic Disorder) .	11. 12. 13. 14. 15.	**Solve these sums:** 20-5 + 2 = 10% of 100 = 25 mangoes shared among five pupils equally = What does ¼ to ten mean as it relates to time? 12 x 3 =
Section D Dyspraxia Fine Motor Deficit	16. 17. 18. 19. 20..	Write these symbols upside down in the boxes provided. E.g ⊥ ⊤ (a) m = ☐ (b) n = ☐ Draw these objects (a) a ball (b) an egg Copy these backward. For example 01 -10 (a) 21 =..... (b) 81=..... (c) keas=..... Join these dots to form a box ➡  Complete this shape into a circle

PART III: PERCEPTION OF SELF AND SCHOOL ENVIRONMENT

Key: CT - Completely true
T - True
F - False
CF - Completely False

Perception	SN	Activities describing perception	CT	T	F	CF
PART III: Section						
SELF — A Academic	21.	I am good academically				
	22.	I don't do my homework on time				
SELF — B: Physical	23.	I like the shape of my body				
	24.	I hate my dentition				
SELF — C: Social	25.	I make friends easily				
	26.	I prefer to be alone				
SELF — D: Moral	27.	I like telling the truth				
	28.	I don't respect anybody				
PART IV: Section						
School physical environment — scape	29.	Trees and flowers are planted in my school				
	30.	My school is not on a level ground				
School physical environment — B: Facilities	31.	There are enough desks in my school				
	32.	Water is difficult to get in my class				
School physical environment — C: infrastructure	33.	I have enough space to myself in my class				
	34.	I cannot access my classroom with ease				
School physical environment — D: Equipment	35.	There are no science apparatus in my school laboratory				
	36.	My school has modern sports equipment				
PART V: Section						
School social environment — A: Teacher – pupil relationship	37.	My teacher encourages me to learn				
	38.	I cannot discuss freely with my teacher				
School social environment — B: Pupil-pupil relationship	39.	My classmates are not fun to be with				
	40.	I always wish to be in school				
School social environment — C: Tone of school discipline	41.	All forms of bullying are punishable in my school				
	42.	Wearing improper dressing does not attract punishment in my school				
School social environment — D: Co-curricular activities	43.	In my school every pupil is encouraged to take part in sports				
	44.	Club membership is not compulsory in my school				
PART VI: Section						
Classroom instruction	45.	My teacher does not use assignment to provide help for me				
	46.	I learn better when instructional materials are used in teaching				
	47.	I do not get explanations on difficult subjects in class				
	48.	I ask questions whenever I don't understand my teacher				
	49.	I always complete my classwork on time.				
	50.	My teacher goes round to attend to the pupils individually				