

# Learning Problems of Children and Adolescents in Nigeria and Intervention Strategies

**Onukwufor, Jonathan N. (Ph.D.)**

Department of Educational Psychology Guidance and Counselling

University of Port-Harcourt

E-mail:Onukwuforjonathan@Yahoo.Com

---

## **Abstract**

*This study was conducted to ascertain the types of learning problems or learning disabilities affecting children and adolescents in Nigeria and possible intervention strategies. Meanings of learning and learning problem were highlighted. Learning disabilities or learning disorder was seen as umbrella name for a variety of learning problems. Brief history of formal learning was presented. The concept of leaning problems and causes were highlighted, types of learning problems such as dyslexia, dyscalculia etc., and signs were as well highlighted. The study presented symptoms of learning problems from preschool to adolescent age, prevalence of learning disabilities and possible intervention strategies were postulated. Some suggestions were made, which included that school authorities should make efforts to identify children with learning problems at the earliest period for appropriate intervention to mitigate the problem. Conclusions were also presented.*

---

**Keywords:** *Dyslexia, Dyscalculia, Dysgraphia, dyspraxia and Neuroplasticity:*

---

## **Introduction**

Learning as a psychological construct, is an activity that occurs inside an individual or an animal. Implicit in this assertion is that learning cannot be directly observed in an individual or animal, rather it can only be inferred .The postulation that learning can only be inferred presupposes that it is only through the manifestations of learning in an organism that one could conclude that learning has taken place. For instance, if a nursery pupil who could not count one to twenty would display such a behaviour after a lesson captioned “how to count one to twenty” in this regard, an observer who was aware of the nursery pupil’s inability to count one to twenty prior to the lesson, can now conclude that learning has taken place due to his change in behaviour, which is his current ability to do the counting. Learning is invisible and it takes place in the mind.

The concept of learning is broad. It involves acquisition of knowledge and skills in diverse areas such as acquisition of information in the classroom, receiving instruction in the work- shop, football practice, typing and shorthand lesson (Kemjika, 2013). Learning also involves acquisition of cultural values such as ability to respect and greet elders in a community which can be acquired through observational learning.

## **Definitions of Learning**

Scholars have defined learning from diverse perspectives. According to Ellis cited in Nwankwo (2007:3) learning is a relatively permanent process that is inferred from performance changes due to practice. Implicit in the above definition is that when a person's performance in any task changes due to practice, learning has occurred in that person. The above definition reminds us of the aphorism which states that practice makes perfect. It is through practice that an individual learns how to drive a car, swim, ride bicycle, type and write etc. if the acquisition of these skills are relatively permanent, then learning has occurred. Colman (2003) defined learning as "any lasting change in behaviour resulting from experience. In this definition learning is seen as any durable change in behaviour which is as a result of experience.

Experience in this regard refers to the process of gaining knowledge or skill over a period of time through seeing and doing things that captivate our interest. The experience could occur in the classroom or outside the classroom.

In consonance with the above definitions of learning, Morgan, King and Robinson cited in Nwankwo (2007) defined learning as "any relatively permanent change in behaviour which occurs as a result of practice or experience. The definition entails that learning occurs through practice and experience.

## **Brief History of Learning**

Learning is one of the most important human activities. Learning can be said to be as old as mankind because learning starts soon after birth when the child learns the parent's language and objects around him. However formal learning could be traced back to 3500 B.C. after the art of writing was developed in Egypt which facilitated lessons recording thereby replacing reliance on oral history. (Tokuhama – Espinosa, 2010). According to Tokuhema – Espinosa (2010), some of the earliest written records show that formal education in which basic communication skills, language, trading customs, agricultural and religious practices were taught, began in Egypt sometime between 3000 and 500 BC. This formal education emerged 500 years after the art of writing was developed.

## **Concept of Learning Problem and Causes**

A wide variety of learning problems are classified as learning disabilities or learning disorders. According to Kemp, Smith and Segal (2016), learning disabilities or learning disorders are an umbrella term for a wider variety of learning problems. Consequently, learning problems and learning disabilities will be used interchangeably in this write up. Thus, learning problems generally constitute what is called learning disabilities, which is also called learning disorders. Nemours Foundation (2016) explained that learning problems happen because of the way the brain takes in and processes information consequently some people learn differently. Kemp, Smith and Segal (2016) observe that kids with learning disabilities are not lazy or dumb and that most of them are as smart as everyone else; rather the problem is that their brains are wired differently. This according to some authors could lead to problem of learning new information and skill and putting them to use.

According to Colman (2003) learning disability may be a consequence of insults to the developing brain before or during birth, involving such factors as significant maternal illness or injury, drug or alcohol use during pregnancy, maternal malnutrition, low birth weight, oxygen deprivation and premature or prolonged labour. Postnatal events resulting in learning disabilities

might include traumatic injuries, severe nutritional deprivation or exposure to poisonous substance such as lead.

In their own submission, Bernstein, Penner Clarke Stewart and Roy (2006) stated that people who show a significant discrepancy between their measured intelligence and their academic performance may have learning disability. They further highlighted that learning disability or learning problems are often seen in people with average or above average IQs. The U.S. National Joint Committee on Learning Disabilities (1994) cited in Bernstein et al (2006) suggest that the learning disorders are caused by dysfunctions in the brain. However, the USA National Centre for learning disabilities (2014) suggests that learning disabilities could arise in the brain due to neurological differences in brain structure and function.

Nemours Foundation (2015) reported that learning disabilities are genetic. This indicates that learning disabilities can be transferred through genes from parents and grandparents to their offspring's. Thus, if someone has a learning problem, there may be some other members of his family who had encountered the problem before.

### Types of Learning Problems

The most common types of learning problems are concerned with problem of reading, spelling, writing, mathematics, reasoning, listing and speaking. The learning problems as identified by Kemp, Smith and Segal (2016) are: Dyslexia, is dyscalculia and dysgraphia.

**Dyslexia:** dyslexia is defined as difficulty reading. When children are learning to read and write in kindergarten and first grade, it is not uncommon for them to misinterpret a “b”, “d” as a “6” as “9” they can see the word “no as so”. It should be noted that the problem is not connected with vision; rather the brain is reversing, inverting or miss-sequencing the information it receives from the eyes. Most children outgrow this at age seven while for others it continues. In another form of dyslexia the mind accurately identifies a word it sees but is slow to attach a meaning to it. The adolescents facing this problem of dyslexia read extremely slowly and may reread material several times before they understand it.

Signs of reading difficulties include problems with:

- Letter and word recognition
- Understanding words and ideas
- Reading speed, and fluency
- General vocabulary skills.

**Dyscalculia:** This is defined as difficulty in performing mathematical calculations. Though mathematics is problematic for many students, dyscalculia adolescents may not be able to comprehend simple mathematical concepts. They may struggle with memorization and organization of numbers, operations signs such as  $6 + 6$  and  $4 \times 5$  may be problem for them.

Signs of Mathematics based learning problems include problems with:

- Struggling with memorization and organization of numbers
- Operation sings and number “facts” such as  $7 + 7 = 14$ ,  $7 - 4 = 3$ ,  $6 \times 6 = 36$  and  $6 \times 5 = 30$ .
- Counting principle such as counting by two's or by four's times may be a problem
- Telling time is another problem.

**Dysgraphia:** Dysgraphia is defined as difficulty in writing as a result of dyslexia, poor motor coordination and difficulties understanding space, if a student affected by dysgraphia writes a report, it may contain many illegible and misspelled words. (American Academy of Pediatrics 2004). Other types of learning problems or disabilities include dyspraxia, dysphasia, auditory processing disorder.

Signs of writing problems include problem with:

- Neatness and consistency of writing
- Accuracy copying letters and words
- Spelling consistency.
- Writing organization and consistency.

### **Dysphasia**

This refers to learning disabilities in language. Language and communication learning disabilities involve the ability to understand or produce spoken language. Language is an “output” activity because it involves organizing thoughts in the brain and using the appropriate words to communicate such views to others.

Signs of a language – based learning problem or disorder include difficulty with:

- Verbal language skills such as ability to retell a story and the fluency of speech.
- Ability to understand the meaning of words.
- Understanding parts of speech.

**Dyspraxia:** Dyspraxia refers to learning disabilities in motor skills: Motor difficulty involves problems with movement and coordination whether it is with fine motor skills, (cutting, writing) or gross motor skills (running, jumping). According to Kemp, Smith and Segal (2016) a motor disability is sometimes referred to as an “output” activity meaning that it relates to the output of information from the brain. Thus, in order to jump, run write or cut something, the brain has to communicate with the necessary limbs to effect the action.

Signs of Learning disabilities in motor skills include problems with:

Physical abilities that require hand – eyes coordination, like holding a pencil or buttoning a shirt.

### **Auditors processing disorder:**

#### **Auditory and visual processing problems**

The eyes and the ears are the primary means of delivering information to the brain, a process sometimes called input. If either the eyes or the ears are not functioning properly, learning can be adversely affected.

**Auditory processing disorder is an** inability to distinguish subtle difference in sound or hearing sounds at the wrong speed make it difficult to sound out words and understand the basic concepts of reading and writing. On the other hand, the ability to hear things correctly greatly influences the ability to read, write and spell.

#### **Visual Processing Disorder**

Problems in visual perception include: missing minor differences in shapes, reversing letters or numbers, skipping lines, misperceiving depth or distance or having problems with eye-hand coordination. Visual perception can affect gross and fine motor skills, reading mathematics

and comprehension (Kemp, Smith and Segal 2016).

### **Symptoms or Learning Problems**

Preschool Period includes:

- Problems pronouncing words
- Difficulty finding the right word
- Difficulty rhyming
- Problem learning the alphabets, numbers, colours, shapes and days of the week.
- Problem following directions or learning routines difficulty controlling crayons, pencils or scissors or colouring within the lines.
- Trouble with buttons, zippers, snaps, learning to tie shoes.
- Ages: 5 – 9
- Trouble learning the connection between letters and sounds
- Inability to blend sounds to make words
- Confuses basic words when reading
- Consistently misspells words and makes frequent reading errors
- Trouble learning basic mathematics concepts
- Difficulty remembering sequences and telling time
- Slow to learn new skills.

Ages 10 – 13 symptoms of learning disabilities

- Difficulty with reading comprehension or mathematics skills.
- Trouble with open-ended test questions and word problems
- Dislikes in reading and writings, avoids reading aloud.
- Spells the same word differently in a single document
- Poor organizational skills (bedroom, homework), desk is messy and disorganized)
- Trouble following classroom discussions and expressing thoughts aloud
- Poor writing (Kemp, Smith and Segal 2016)

### **Prevalence of Learning Disabilities**

In the United States of America (USA) 1.7% of the population reports having learning disability. It is more prevalent among males (2%) than females (1.3%). It is higher among those living in poverty (2.6%) than those living above poverty (1.5%). The prevalence of learning disability among school age children is 2.2%. Children from ages 6 – 11 years are 1.8%, while adolescents from 12 to 17 years are 2.6%. Adults from 18 to 24 years the prevalence of learning disorder is 2.7%, also adults 18 – 65 years, male prevalence is 2% while female is 1.4%, while the prevalence of learning disability among males above 65 years of age is 0.8% while that of female is 0.7%. (USA Centre for Learning Disability 2014).

The prevalence of learning problems or learning disabilities in Nigeria is 12 million out of this number, 6 million are children (Okoye 2014).

### **Intervention Strategies**

Early intervention in student's learning problems, cum learning disabilities enhance the learners success in school and in life subsequently. If learning disabilities are not handled, the learner may feel frustrated with school work, which may result in low self-esteem and depression. The interventions for specific learning disabilities are as follows:

### **Dyslexia:**

- Special teaching techniques: These include helping the child learn through multisensory experiences and by providing immediate feedback to strengthen a child's ability to recognize words:
- Classroom modifications: The teacher can give students with dyslexia extra time to finish tasks and provide taped tests that allow the child to hear the questions instead of reading them.
- Use of technology: Children who have dyslexia may benefit from listening to books on tape or using word processing programmes with spell check features.

### **Dyscalculia**

- Visual techniques: In this regard teachers can draw picture of words that create problems and show the students how to use coloured pencils to differentiate parts of problems.
- Use of memory aids: Rhymes and music are among the techniques that can be used to help a child remember math concept.
- Use of computers: A learner with dyscalculia can use computer for drills and practice.

### **Dysgraphia**

- Special tools: Teachers can offer oral examinations, provide a note taker and allow the child to videotape reports instead of writing them.
- Use of technology: A child with dysgraphia can be taught to use word processing programmes or an audio-recorder, instead of writing by hand.
- Other ways to reduce the need for writing include teachers to provide notes, outline and preprinted study materials.

### **Dyspraxia**

- Quiet learning environment: In order to help a child deal with sensitivity to noise and distractions, educators are to provide the learners with a quiet place for tests, silent reading and other tasks that require concentration.
- Alerting the child in advance: A child who is sensitive to noise may benefit from knowing in advance about such event as fire drills and assemblies
- Occupational Therapy  
Exercises that focus on the tasks of daily living can help a teacher with poor coordination. (Treatment of Learning disorder 2014 <https://www.nichd>).

### **Neuroplasticity:**

At the moment, neuroplasticity is the hope for treating learning disorder Neuroplasticity. According to Kemp, Smith and Segal (2016) is the brains natural ability to change. Thus, throughout life, the brain is able to form new cells in response to experience and learning. This knowledge has led to new great discovery for the treatment of learning disabilities by utilizing the brains ability to change. For instance, Arrows Smith programme, use strategic brain experiences to identify and strengthen weak cognitive areas.

Also, children who have difficulty distinguishing between different sounds in a word, there is a new computer based learning programme that slow down the sounds so that children can understand them and gradually increase their speed of comprehension.

Bypass Intervention. This strategy is a method in which weaknesses are bypassed. For instance, a child with writing problems might use a word processor to write reports if the learner has oral expressive skills she could be allowed to give oral reports instead of written ones and take tests and examination orally (American Academy of Pediatrics 2004).

The role of counseling psychologists appear indispensable in handling learning problems related to anxiety, depression and stressful events that hinder learning.

### Suggestions

1. It is imperative for government to create awareness of learning problems cum learning disabilities in Nigeria.
2. Federal government is required to create a research centre for diagnose and intervention on learning problems among school age children and adolescents.
3. Efforts should be made by school authorities to identify children with learning problems at the earlier period for appropriate intervention to mitigate the problem.

Teachers should give special attention to children and adolescents who have learning disabilities in the classroom.

4. School authorities should permit extra time to be given to learners with learning disability during tests and examinations due to the nature of their problems.

### Conclusion

The axiom that 12, million Nigerians have learning disabilities is indeed a serious learning crises and challenge to national sustainable development, hence the need for early intervention to ameliorate the challenge.

### Reference

- American Academy of Pediatrics (2003). Types of Learning problems. Retrieved on August 25<sup>th</sup> 2011 from <https://www.heathychildren.org/English/health-issues/conditions/lea...>
- American Academy of Pediatrics (2016): Interventions for learning disorders. Retrieved August 30<sup>th</sup>, 20<sup>th</sup> from <https://www.heathychildren.org/English/health..issue/conditions/lea..>
- Bernstein, O.A., Penner, L.A. Clarke-Stewart A., Roy, E.J. (2006). *Psychology* (7th ed) Boston: Houghton Mifflin.
- Colman, A.M (2003). *Oxford dictionary of psychology*. New York: Oxford University Press.
- Federal Republic of Nigeria (998) *National Policy on Education*. Abuja: Federal Ministry of Education.
- Giulioni, P. (2010). *Prevalence of learning disabilities*. Pearson, Allyn Bacon Prentice Hall.
- Kemjika, O.G. (2013). *Educational psychology: Learning theories and instructional application*. Onitsha: Fabson Printing and Publishing Co. Ltd.
- Kemp, G. Smith, M., & Segal, J. (2016). Learning disabilities and disorders. Retrieved. August 25<sup>th</sup>, 2016 from <http://www.helpguide.org//articles/learning.disabiliteis/learning.disabities>.
- Newakwo, O.C. (2007). *Psychology of learning: The human perspective*. Pam Unique Publishers.
- Okoye, C., (2014). 12 million Nigerians living with learning disabilities. *Vanguard Newspaper June 5<sup>th</sup>*.
- U.S.A. National Centre for Learning Disability (2014) the state of learning Disabilities. <http://www.ncid.org/wp.content/uploads/2014/11/2014-state-of-LD.pdt>.

What are the treatment for learning disabilities (2014) Retrieved August 30<sup>th</sup> 2016 from:  
<https://www.nichd.nih.gov/health/topics/learning/conditioninfor/trea...>