



# **SPE 104**

# **Introduction to Special**

# **Education**

Course Manual

**J.O. Oyundoyin Ph.D**

# Introduction to Special Education

SPE104



**University of Ibadan Distance Learning Centre**  
**Open and Distance Learning Course Series Development**  
Version 1.0 beta

# Copyright

Copyright © 2009, 2013 by Distance Learning Centre, University of Ibadan, Ibadan

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior permission of the copyright owner.

ISBN: 978-021-386-6

*General Editor:* Prof. Bayo Okunade

Page layout, Instructional Design & UI Mobile Class Development by EDUTECHportal,  
[www.edutechportal.org](http://www.edutechportal.org)

## Vice-Chancellor's Message

The Distance Learning Centre is building on a solid tradition of over two decades of service in the provision of External Studies Programme and now Distance Learning Education in Nigeria and beyond. The Distance Learning mode to which we are committed is providing access to many deserving Nigerians in having access to higher education especially those who by the nature of their engagement do not have the luxury of full time education. Recently, it is contributing in no small measure to providing places for teeming Nigerian youths who for one reason or the other could not get admission into the conventional universities.

These course materials have been written by writers specially trained in ODL course delivery. The writers have made great efforts to provide up to date information, knowledge and skills in the different disciplines and ensure that the materials are user-friendly.

In addition to provision of course materials in print and e-format, a lot of Information Technology input has also gone into the deployment of course materials. Most of them can be downloaded from the DLC website and are available in audio format which you can also download into your mobile phones, IPod, MP3 among other devices to allow you listen to the audio study sessions. Some of the study session materials have been scripted and are being broadcast on the university's Diamond Radio FM 101.1, while others have been delivered and captured in audio-visual format in a classroom environment for use by our students. Detailed information on availability and access is available on the website. We will continue in our efforts to provide and review course materials for our courses.

However, for you to take advantage of these formats, you will need to improve on your I.T. skills and develop requisite distance learning Culture. It is well known that, for efficient and effective provision of Distance learning education, availability of appropriate and relevant course materials is a *sine qua non*. So also, is the availability of multiple plat form for the convenience of our students. It is in fulfilment of this, that series of course materials are being written to enable our students study at their own pace and convenience.

It is our hope that you will put these course materials to the best use.



Prof. Isaac Adewole

Vice-Chancellor

## Foreword

As part of its vision of providing education for “Liberty and Development” for Nigerians and the International Community, the University of Ibadan, Distance Learning Centre has recently embarked on a vigorous repositioning agenda which aimed at embracing a holistic and all encompassing approach to the delivery of its Open Distance Learning (ODL) programmes. Thus we are committed to global best practices in distance learning provision. Apart from providing an efficient administrative and academic support for our students, we are committed to providing educational resource materials for the use of our students. We are convinced that, without an up-to-date, learner-friendly and distance learning compliant course materials, there cannot be any basis to lay claim to being a provider of distance learning education. Indeed, availability of appropriate course materials in multiple formats is the hub of any distance learning provision worldwide.

In view of the above, we are vigorously pursuing as a matter of priority, the provision of credible, learner-friendly and interactive course materials for all our courses. We commissioned the authoring of, and review of course materials to teams of experts and their outputs were subjected to rigorous peer review to ensure standard. The approach not only emphasizes cognitive knowledge, but also skills and humane values which are at the core of education, even in an ICT age.

The development of the materials which is on-going also had input from experienced editors and illustrators who have ensured that they are accurate, current and learner-friendly. They are specially written with distance learners in mind. This is very important because, distance learning involves non-residential students who can often feel isolated from the community of learners.

It is important to note that, for a distance learner to excel there is the need to source and read relevant materials apart from this course material. Therefore, adequate supplementary reading materials as well as other information sources are suggested in the course materials.

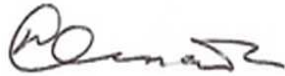
Apart from the responsibility for you to read this course material with others, you are also advised to seek assistance from your course facilitators especially academic advisors during your study even before the interactive session which is by design for revision. Your academic advisors will assist you using convenient technology including Google Hang Out, You Tube, Talk Fusion, etc. but you have to take advantage of these. It is also going to be of immense advantage if you complete assignments as at when due so as to have necessary feedbacks as a guide.

The implication of the above is that, a distance learner has a responsibility to develop requisite distance learning culture which includes diligent and disciplined self-study, seeking available administrative and academic support and acquisition of basic information technology skills. This is why you are encouraged to develop your computer skills by availing yourself the opportunity of training that the Centre’s provide and put these into use.

In conclusion, it is envisaged that the course materials would also be useful for the regular students of tertiary institutions in Nigeria who are faced with a dearth of high quality textbooks. We are therefore, delighted to present these titles to both our distance learning students and the university's regular students. We are confident that the materials will be an invaluable resource to all.

We would like to thank all our authors, reviewers and production staff for the high quality of work.

Best wishes.

A handwritten signature in black ink, appearing to read 'Bayo Okunade', with a stylized flourish at the end.

Professor Bayo Okunade

Director

# Acknowledgements

The University of Ibadan Distance Learning Centre wishes to thank this course manual writing team:

. Course Writer

J.O. Oyundoyin Ph.D

Content Editor

Prof. Remi Raji-Oyelade

Production Editor

Dr. Gloria O. Adedoja

Learning Design & Technologist

Folajimi Olambo Fakoya

Managing Editor

Ogunmefun Oladele Abiodun

General Editor

Prof. Bayo Okunade





# Table of Contents

About this course manual.....	1
How this course manual is structured.....	1
Course overview.....	3
Welcome to Introduction to Special Education SPE104.....	3
Introduction to Special Education SPE104—is this course for you?.....	3
Course outcomes.....	3
Timeframe.....	4
Study skills.....	4
Assignments.....	5
<b>Getting around this course manual</b> .....	<b>6</b>
Margin icons.....	6
<b>Study Session 1</b> .....	<b>7</b>
General Concepts in Special Education.....	7
Introduction.....	7
1.1 The Meaning of Special Education.....	7
1.2 Changes in Terminology.....	8
1.3 Categories of Children with Exceptional Needs.....	9
Study Session summary.....	10
<b>Study Session 2</b> .....	<b>11</b>
Mental Retardation.....	11
Introduction.....	11
2.1 The Meaning and Prevalence of Mental Retardation.....	11
2.2 Causes of Mental Retardation.....	12
A. Prenatal Causes (Before birth).....	12
B. Peri-natal Causes (During birth).....	13
C. Postnatal Causes (After birth).....	13
2.3 Characteristics of Persons with Mental Retardation.....	13
A. Educational/Intellectual characteristics.....	13
B. Behavioural / Emotional Characteristics.....	13
C. Physical Characteristics.....	13
2.4 Classifications of Mental Retardation.....	14
2.4.1 Old/Traditional Classification.....	14
2.4.2 New/Educational Classification.....	14
2.4.3 British Classification.....	14
2.4.4 Clinical Classification.....	14
2.5 Educational Programmes for Persons with Mental Retardation.....	15
2.6 Prevention of Mental Retardation.....	15

Study Session Summary .....	16
Bibliography.....	16
<b>Study Session 3</b>	<b>17</b>
Visual Impairment.....	17
Introduction .....	17
3.1 The Meaning of Visual Impairment .....	17
3.2 Causes of Visual Impairment.....	18
3.3 Signs, Characteristics and Features of Visual Impairment.....	19
3.4 Educating the Visually Impaired.....	20
3.5 Prevention of Visual Impairment .....	21
Study Session Summary .....	21
<b>Study Session 4</b>	<b>22</b>
Learning Disabilities.....	22
Introduction .....	22
4.1 Historical Background to Learning Disabilities .....	22
4.2 Definition of Learning Disabilities .....	23
Consideration of some Harmonised Definitions .....	24
4.3 Characteristics of Learning Disabilities .....	25
4.3.1 Hyperactivity.....	26
4.3.2 Withdrawal Syndrome .....	26
4.3.3 Emotional Instability.....	26
4.3.4 Attention Deficit/Short Attention Problems .....	26
4.3.5 Clumsiness and Awkwardness .....	27
4.3.6 Low Frustration Tolerance.....	27
4.3.7 Preservation .....	27
4.3.8 Acting on Impulse.....	27
4.3.9 Perceptual Motor Impairments.....	27
4.3.10 Cognitive Information Processing.....	28
4.3.11 Poor Academic Achievement.....	28
4.3.12 Differential Intelligence .....	28
4.4 Types Learning Disabilities.....	29
4.5 Causes of Learning Disabilities.....	29
4.5.1 Neurological Causes .....	29
4.5.2 Maturational Delay .....	30
4.5.3 Biochemical Imbalances.....	30
4.5.4 Genetic Causes.....	30
4.5.5 Environmental Causes.....	30
4.5.6 Unknown Causes.....	31
4.6 Identification of Learning Disabilities .....	31
4.7 Challenges of Learning Disabilities.....	31
4.7.1 Challenges of Learning Disabilities to Educators .....	31
4.7.2 Challenges of Learning Disabilities to Specialists.....	32
4.7.3 Strategies of overcoming the challenges of learning disabilities.....	32
Study Session Summary .....	33
<b>Study Session 5</b>	<b>35</b>
Communication Disorders.....	35
Introduction .....	35

5.1 What is Communication? .....	35
5.1.1 Elements of Communication a unit.....	35
5.1.2 Functions of Communication .....	35
5.2 Speech and Language .....	36
5.2.1 Five Dimensions of Language.....	36
5.2.2 Normal Development of Language.....	36
5.3 Communication Disorder.....	36
5.3.1 Types of Communication Impairment.....	37
Speech Impairment.....	37
Language Impairments.....	38
5.3.2 Signs or characteristics of communication disorder.....	38
Speech Errors .....	38
Language Errors .....	38
5.3.3 Identification of Communication Disorders.....	39
Teacher observation.....	39
Screening.....	39
5.4 Educational challenges of Communication Disorder .....	39
Implications for Teachers.....	40
Study Session Summary.....	42
Bibliography.....	42

---

**Study Session 6** **44**

Autism Spectrum Disorders .....	44
Introduction .....	44
6.1 Characteristics of Children with Autism Spectrum Disorders (ASD).....	44
6.2 Causes of Autism.....	45
6.3 Types of Disorders in Autistic Spectrum.....	46
6.4 Challenges and Implications for Autism.....	46
Implications for Treatment.....	47
Intensive and sustained special programmes.....	47
Classroom Strategies for Children with Autistic Spectrum Disorders.....	47
Study Session Summary.....	47

---

**Study Session 7** **48**

Physical and Health Impairments.....	48
Introduction .....	48
7.1 Nature of Physical and Health Impairments.....	48
7.2 Categories of Physical and Health impairments .....	48
7.3 Educational Implications for Children with Physical and Health Impairments.....	49
Study Session Summary.....	49
Bibliography.....	50



---

## About this course manual

Introduction to Special Education SPE104 has been produced by University of Ibadan Distance Learning Centre. All course manuals produced by University of Ibadan Distance Learning Centre are structured in the same way, as outlined below.

---

## How this course manual is structured

### The course overview

The course overview gives you a general introduction to the course. Information contained in the course overview will help you determine:

- If the course is suitable for you.
- What you will already need to know.
- What you can expect from the course.
- How much time you will need to invest to complete the course.

The overview also provides guidance on:

- Study skills.
- Where to get help.
- Course assignments and assessments.
- Activity icons.
- Study Sessions.

We strongly recommend that you read the overview *carefully* before starting your study.

### The course content

The course is broken down into Study Sessions. Each Study Session comprises:

- An introduction to the Study Session content.
- Study Session outcomes.
- New terminology.
- Core content of the Study Session with a variety of learning activities.
- A Study Session summary.
- Assignments and/or assessments, as applicable.

## Resources

For those interested in learning more on this subject, we provide you with a list of additional resources at the end of this course manual; these may be books, articles or web sites.

## Your comments

After completing Introduction to Special Education we would appreciate it if you would take a few moments to give us your feedback on any aspect of this course. Your feedback might include comments on:

- Course content and structure.
- Course reading materials and resources.
- Course assignments.
- Course assessments.
- Course duration.
- Course support (assigned tutors, technical help, etc.)

Your constructive feedback will help us to improve and enhance this course.

---

## Course overview

---

---

### Welcome to Introduction to Special Education SPE104

This course brings to your awareness the existence of different categories of disability conditions in your immediate environments and communities. It attempts to enhance your understanding of these conditions and their impact on learners. Contemporary issues on helping people with disabilities get fully integrated into the society without difficulty will also be discussed.

---

### Introduction to Special Education SPE104—is this course for you?

SPE104 is a 3 unit faculty course that is intended for people who potential teachers of children with disabilities. Children with disabilities have as much right as those without disabilities. Therefore, they should not be excluded from education at any level irrespective of their conditions. Governments at all levels have endorsed Free Universal Basic Education for all children with disabilities. Thus, all pre-service teachers need to identify the peculiar educational needs of individuals with disabilities.

All 100 level students in the faculty of education are required to take this course.

---

### Course outcomes



Upon completion of Introduction to Special Education SPE104 you will be able to:

- Appraise the definitions of general concepts in special education.
- Discuss new issues and trends in special education needs.
- Point out different types of impairments.
- Outline the causes of some physical and health impairments.
- Present effective classroom management strategies that promote active learning for children with impairments.

## Timeframe



### How long?

This is a 15 weeks course. It requires a formal study time of 45 hours. The formal study times are scheduled around online discussions / chats with your course facilitator / academic advisor to facilitate your learning. Kindly see course calendar on your course website for scheduled dates. You will still require independent/personal study time particularly in studying your course materials.

## Study skills



As an adult learner your approach to learning will be different to that from your school days: you will choose what you want to study, you will have professional and/or personal motivation for doing so and you will most likely be fitting your study activities around other professional or domestic responsibilities.

Essentially you will be taking control of your learning environment. As a consequence, you will need to consider performance issues related to time management, goal setting, stress management, etc. Perhaps you will also need to reacquaint yourself in areas such as essay planning, coping with exams and using the web as a learning resource.

We recommend that you take time now—before starting your self-study—to familiarize yourself with these issues. There are a number of excellent resources on the web. A few suggested links are:

- <http://www.ucc.vt.edu/stdysk/stdyhelp.html>

This is the web site of the Virginia Tech, Division of Student Affairs. You will find links to time scheduling (including a “where does time go?” link), a study skill checklist, basic concentration techniques, control of the study environment, note taking, how to read essays for analysis, memory skills (“remembering”).

- <http://www.howtostudy.org/resources.php>

Another “How to study” web site with useful links to time management, efficient reading, questioning/listening/observing skills, getting the most out of doing (“hands-on” learning), memory building, tips for staying motivated, developing a learning plan.

The above links are our suggestions to start you on your way. At the time of writing these web links were active. If you want to look for more go to [www.google.com](http://www.google.com) and type “self-study basics”, “self-study tips”, “self-study skills” or similar phrases.



## Assignments



### Assignments

There are a total of Seven Study Session Assignments. The assignments are to be submitted on course website, for evaluation by your course academic advisor. See course calendar on course website for scheduled dates of turning in your assignments. It is highly recommended that you to submit your assignments within due dates.

# Getting around this course manual

## Margin icons

While working through this course manual you will notice the frequent use of margin icons. These icons serve to “signpost” a particular piece of text, a new task or change in activity; they have been included to help you to find your way around this course manual.

A complete icon set is shown below. We suggest that you familiarize yourself with the icons and their meaning before starting your study.

			
<b>Activity</b>	<b>Assessment</b>	<b>Assignment</b>	<b>Case study</b>
			
<b>Discussion</b>	<b>Group Activity</b>	<b>Help</b>	<b>Outcomes</b>
			
<b>Note</b>	<b>Reflection</b>	<b>Reading</b>	<b>Study skills</b>
			
<b>Summary</b>	<b>Terminology</b>	<b>Time</b>	<b>Tip</b>

# Study Session 1

## General Concepts in Special Education

### Introduction

In this Study Session, our intention is to bring to your awareness the general concepts in special education vis- a -vis the definition of special education, some terms in Special Education, such as handicap, impairment, disability, exceptionality. This Study Session will also examine the shift in paradigm of some terminologies in Special Education to Special Needs Education / Special Educational Needs (SEN); how disability before a person has changed to a person first before the disability. It will also highlight various beneficiaries of special needs education and the new issues and trends in special education needs.



### Learning Outcomes

When you have studied this session, you should be able to:

- i. present the concept of special education;
- ii. point out the changes in some special education terminologies; and
- iii. categorise children with exceptional needs.

### Terminology

<b>Disability:</b>	A condition that curtails to some degree a person's ability to carry on his normal pursuits. A disability may be partial or total; it may also be temporary or permanent.
<b>Impairment:</b>	This refers to the loss or reduced functionality of a particular body part or organ.
<b>Handicap:</b>	This refers to a problem or disadvantage that a person with a disability or impairment encounters in interacting with the environment.
<b>Exceptionality/ Exceptional Children:</b>	This term includes children who experience difficulties in learning as well as those children whose performance is so superior that modifications in curriculum and instruction are necessary to help them fulfil their potential.

## 1.1 The Meaning of Special Education

**Special education** may be thought of as an ideal general education in which individual differences are duly considered and provided for. These differences are manifest in pupils' abilities, aptitudes, learning styles and

motivation to learn. Obani (2004) sees special education as **education** specially designed to suit the special needs of children who may experience learning problems and learning difficulties as a result of disabilities or handicaps or other forms of special educational needs.

In the past, special education was viewed, considered and practised almost as a separate system of education. It was seen as education for the disabled and handicapped people. It was a common thing then to hear comments such as “education for the blind and the deaf”, “What are they doing there? “What percentage of the population are they talking about”. Special education was viewed as education that could only be provided by some specially trained teachers, using special methods and approaches, special equipment and materials, and often given in schedule settings called special schools.

Since the mid-70s, there has been a lot of rethinking and re-orientation in the conceptualisation and practice of special education. Special education is no longer regarded as education for the **handicapped and disabled** only; it has been widened to include many other **disadvantaged learners** and others with different forms and levels of learning requirements. It is no longer education to be given in special settings (Special schools, special classrooms, etc) by some special teachers only, using special methods and approaches and equipment. It is now education to be given in regular neighbourhood schools by any well-trained regular class teacher in classes for all children; their physical, sensory, psychological and other learning differences not withstanding. From this change in orientation and thinking have come concepts like integration /mainstreaming, schools for all, whole school approach, and inclusion or inclusive schooling.

**Special educational needs** (SEN) is a British concept which was introduced in the 1970s and replaced the older concept of special education. As a concept, it was meant to broaden the notion and practice of special education to make it more ordinary, more natural, less negatively perceived, and more acceptable to the general public. Special education needs, as a concept, is more or less an upgraded version of the older special education concept.

People with special educational needs are, therefore, those who experience /manifest more than the usual difficulties and problems in learning and training as normally offered in regular schools. These are the people who need closer personal attention, some modification and adoptions of the school routines and practices, general **curriculum** and approaches to teaching and learning in order to attain their optimum learning levels and development.

## 1.2 Changes in Terminology

Many years back and until recently, it was a common thing even among the professionals to hear words like “disabled people”, “deaf boy”, “blind girl”, “mentally retarded person”, “learning disabled children”, etc. These labels are considered derogatory by specialists in the field, because they portray the condition before the individual. However, to be more polite and give respect, the individual should come first before the condition. This new approach therefore, has ushered in terminologies

such as “children or persons with mental retardation, “children with learning difficulties, a child with hearing impairment, etc. It is now widely acceptable to use these new terms to replace the old ones. You will be coming across these new terms as we go along in the Study Sessions.

As part of dynamism in our society, there is always and there will always be a change in approaches and terminologies as researches keep on evolving and as societies keep on appreciating and accepting persons with special needs. As mentioned earlier in this Study Session, there is a change in orientation and thinking. Since some old concepts have transformed with modifications to form new and probably a better one. Among these are terms like integration and mainstreaming which have transformed with some modification to inclusion or **inclusive education**.

Although the term, ‘inclusive education’ is very new, it has gained general recognition and acceptability. It involves bringing together under the same learning environment or classroom all categories of persons with exceptional needs and persons without any exceptional needs. This equally entails provision of gadgets, instructional aids, classrooms and everything needed to make learning conducive to accommodate all categories of learners, not withstanding their exceptionality.

### 1.3 Categories of Children with Exceptional Needs

Categories of children with exceptional needs that benefit from education for the children with special needs include the following categories of exceptionality:

1. persons with mental retardation
2. persons with visual impairment
3. persons with learning disabilities
4. persons with speech/language disorder
5. persons with multiple disabilities
6. persons with physical disabilities
7. persons with emotional /behavioural problems
8. person with autism
9. persons with exceptional intellectual endowment / gift and special talents
10. persons that are restricted – home / hospital bounds.

---

## Study Session summary



### Summary

In this Study Session you learned the concept of special education; and discussed about the changes in some special education terminologies. Finally, we outlined various beneficiaries of Special Educational needs.

# Study Session 2

## Mental Retardation

### Introduction

In this Study Session, we are going to consider in details one of the exceptionalities earlier mentioned in Study Session One – mental retardation. Therefore, the emphasis of the present Study Session will be on the meaning of mental retardation, causes, characteristics, classifications educational programmes for the mentally retarded and the prevention of mental retardation.

When you have studied this session, you should be able to:



- i. define the term mental retardation;
- ii. highlight the causes of mental retardation;
- iii. point out the characteristics of persons with mental retardation;
- iv. classify mental retardation;
- v. discuss some educational programmes available for persons with mental retardation; and
- vi. highlight ways by which mental retardation can be prevented.

### 2.1 The Meaning and Prevalence of Mental Retardation

Some children are clearly and consistently performing below their age groups in many areas of endeavour-academic, social, language, and self-care skills. This deficiency is obvious to anyone who interacts with them, and this calls for special education and related services to help them realize their potentials.

These children experience pervasive and substantial limitations in all or most areas of development and functioning. But, this group is only a small proportion of the total population of persons with **mental retardation**. The largest segment consists of school age children with mild mental retardation.

Many definitions of mental retardation have been adopted and contested over the years. Among these definitions, we shall consider some for your understanding.

Edgar Doll defined mental retardation, using six criteria that must be met before an individual can be classified as having mental retardation. These are:

1. mental sub normality
2. social incompetence
3. retarded at birth or early in life
4. retarded as a result of constitutional origin
5. retarded at maturity and must be
6. retardation is essentially incurable.

Tredgold stated that mental retardation is a state of incomplete mental development of such a kind and degree that an individual is incapable of adapting him/herself to the normal environment of his/her peers so as to maintain independence or control or external support.

Grossman (1983) noted that mental retardation refers to significantly sub-average general intellectual functioning resulting in or associated with deficits in adaptive behaviour and manifested during the developmental period.

AAMR (1992) stated that mental retardation refers to substantial limitations in present functioning. It is characterised by significantly sub average intellectual functioning, existing concurrently with related limitations in two or more of the following applicable adaptive skill areas; communication, self-care, home-living, social skills, community use self direction, health and safety, functional academics , leisure and work.

AAMR (2002) also stated that mental retardation is a disability characterised by significant limitations in both intellectual functioning and conceptual, social and practical adaptive skills. This disability originates before age 18.

### **Prevalence of Mental Retardation**

Not much research has been done in Nigeria to substantiate claim; but in the US, the population of persons with mental retardation was estimated to be about 3% of the general population. According to U.S. Department of Education (2002), during the 2000-2001 school year, 611,878 students ages 6 through 21 received special education under the disability category of mental retardation. These students, according to USDE, represented 10.6% of all school –age children in special education, or about 1% of the total school –age population. Mental retardation is the third largest disability category after learning disabilities and speech or language impairments.

## **2.2 Causes of Mental Retardation**

Causes of mental retardation can be grouped for easy understanding under three major sub-headings: prenatal, peri-natal and postnatal.

### **A. Prenatal Causes (Before birth)**

- Chromosomal disorders e.g. Down syndrome, fragile x syndrome, Turner’s syndrome, Klinefelter syndrome
- Malnutrition by mother
- Excessive exposure to x-ray
- Metabolic errors e.g. Phenylketonuria (PKU)
- Infectious diseases
- Anoxia
- Maternal Age
- Rh-factor or blood in compatibility
- Maternal fall/accident



### **B. Peri-natal Causes (During birth)**

- Premature delivery
- Umbilical cord accidents
- Multiple gestation
- Misuse of forceps
- Head trauma at birth
- Respiratory disorders
- Intracranial haemorrhage
- Neonatal seizures.

### **C. Postnatal Causes (After birth)**

- Head injury
- Infections
- Toxic metabolic disorders
- Malnutrition
- Poisoning
- Environmental deprivation

## **2.3 Characteristics of Persons with Mental Retardation**

We can outline the characteristics of persons with mental retardation under the following:

### **A. Educational/Intellectual characteristics**

- Have difficulty in remembering information
- Have short attention span
- Have problem in transferring knowledge
- They cannot generalise
- They learn very slowly
- They lack interest in learning or problem –solving
- Computation ability is very low

### **B. Behavioural / Emotional Characteristics**

- Some are restless/ hyperactive
- Some are loners / hyperactive
- Some exhibit temper tantrum
- Some are easily distracted

### **C. Physical Characteristics**

- Some have big or small heads
- Some have big tongues
- Some have stubby legs and hands
- Some have golden voice

- In some, it is difficult to differentiate the chest from the abdomen
- Some have basal forehead.

## 2.4 Classifications of Mental Retardation

Mental retardation can be classified under the following, based on some factors such as degree of retardation, clinical symptoms, educational objectives and causes.

### 2.4.1 Old/Traditional Classification

Classification	IQ Range
Idiot	0-25
Imbecile	26-50
Moron	51-75

### 2.4.2 New/Educational Classification

Classification	IQ Range
Totally Dependent Mentally Retarded	0-25
Trainable Mentally Retarded	26-50
Educable Mentally Retarded	51-75

### 2.4.3 British Classification

- Profound mental retardation
- Severe mental retardation
- Moderate mental retardation
- Mild mental retardation

### 2.4.4 Clinical Classification

- Down Syndrome (Mongols)
- Microcephally
- Hydrocephally
- Cretinism
- Phenylketonuria (PKU)
- Galactosemia
- Fragile -x Syndrome
- Turner's Syndrome
- Klinefelter Syndrome
- Prader – Will Syndrome

## 2.5 Educational Programmes for Persons with Mental Retardation

In the time past, many people believed that it is a waste of time trying to educate persons with mental retardation. Hence, they were neglected and left to their fate. The history of their education really started when Jean Itard worked on “Victor the wild boy of Aveyron”. From that period, different experts have emerged with various methods and strategies for educating persons with mental retardation. Because of the nature of their intelligence, people have advocated a separate school and environment for their education. With the time, people started advocating their integration for social interaction and thus we have the following programmes among others:

- A. **Special School:** This implies putting children with mental retardation in a separate school without mixing up with the regular school system. The school is specially built for them and them only
- B. **Special Class:-** This implies having a classroom meant for children with mental retardation in a regular school setting. They interact with other children in the school compound but not learning together with them in the same classroom.
- C. **Resource Room:** In this case, a resource room is built or created in the regular school where the children with mental retardation will go to be attended to during a particular time of the school hour by the resource teacher who is a specialist in handling them. They learn together with other children in the classroom and interact with them but a special time is created for them to visit the resource room for special attention.
- D. **Itinerant teacher –** In this case, there is a special teacher who might not be part of the regular teachers in the school but come at a scheduled time to attend to the needs of children with mental retardation. After attending to them, he goes away until the next appointed time.
- E. **Regular school with Special Unit –** In this case, a special unit is constructed within the compound of the regular school. This implies interaction with other children in the same compound but not learning together in the same classroom.
- F. **Inclusive education –** This is the most current programme of education recommendation for children with exceptional needs. In this case, there is no discrimination at all against the children with exceptional needs. All categories of exceptionality are cared for together with the regular children in the same setting.

## 2.6 Prevention of Mental Retardation

Prevention, as people say, is better than cure. The condition of mental retardation is very serious and it is better prevented in our society than seeking for the cure. Several measures can be employed to prevent the incidence of mental retardation and these include:

1. Dissemination of information about the nature, causes and prevention of childhood accidents through mass media, workshops and seminars is very crucial.
2. Provision of food, primary health care services in our society is also important.
3. Expectant mothers should be enlightened on the risks of self-medication, exposure to x-ray examination and general carefree living, which can endanger the life of the foetus.
4. Over and underage women should be advised on the danger of rearing children.
5. Community based genetic counselling and diagnostic centres should be provided by government and NGOs and be adequately patronized.
6. Excessive drug use should be curtailed / controlled as way as the use of fake drugs outlaw or proscribed by the government.
7. Expectant mother and children should be properly fed with balanced diet to prevent malnutrition.
8. Would- be couples should be mandated to do blood compatibility test before marriage.
9. School and home environments should be stimulating enough to make learning friendly and possible.

---

## Study Session Summary



### Summary

In this Study Session, we have examined the definitions of mental retardation as given by different authors. We also noted that the causes of mental retardation vary from genetic, chromosomal, and environmental factors to radiation. We as well, stated that observable characteristics of persons with mental retardation range from physical, emotional to educational. Children with mental retardation can be educated through various educational programmes according to their intelligence quotient. Mental retardation can equally be prevented in our society.

---

## Bibliography

### Textbooks

Ayoola, E.O. (2006) *Mental Retardation in Special Education*. J.N. Onwuckekwa (Ed.). Ibadan, Nigeria. Agbo Areo Publishers.

Dada, O.C. (2006). *Mental Retardation: A Conceptual Approach*. Ibadan, Nigeria. Radiance Publications.

Adima, E.E. (1994). *Current Perspectives in Mental Retardation*. Department of Special Education, University of Ibadan, Nigeria, Unpublished.

# Study Session 3

## Visual Impairment

### Introduction

In this Study Session, you will be introduced to another exceptionality which is commonly and quickly noticed in our society. Our society associates this exceptionality with begging and till today, many people are still showing sympathy by offering them money or other gifts even when they are not demanded. This Study Session will focus on definition, prevalence, causes, characteristics, educational programme and prevention of visual impairment.

When you have studied this session, you should be able to:

- i. *point* out visual impairment;
- ii. *outline* the causes of visual impairment;
- iii. *highlight* the characteristics of persons with visual impairment;
- iv. *present* programmes through which persons with visual impairment can be educated; and
- v. *highlight* measures that can prevent visual impairment in our society.



#### Learning Outcomes

### 3.1 The Meaning of Visual Impairment

**Vision** is an important sense for interpreting the world around us. When vision is impaired, it can have a detrimental effect on the physical, neurological, cognitive and emotional development on the person concerned. The phrase **visual impairment** is sometimes taken to connote the following visual impairment, ‘vision losses, and ‘vision problem’ both of which refer to the physical loss of part or all of useful vision. On the other hand, the phrase may combine those who are totally visually impaired, short-sighted, long-sighted or astigmatic.

People with **total visual impairment** are those who cannot read, write or print after all optical corrective measures have been taken but still use Braille as a medium of reading and writing. Conventionally, the professionals describe people as those who can see an object at only a distance of 20 feet or closer, when a person with normal vision can see the same object at a distance of 20 feet. Hence, they are said to have a visual acuity of 20/200 or less in the better eye even with correction.

People with **low vision**, which in time past were categorised as blind have some vision which could be developed and used effectively especially in the area of mobility. Some of these people are neither totally blind nor partially sighted, but they have limitations in distance vision. They are able to see objects and materials in their immediate environment, within a few centimeters or at most few metres away from their position.

People who are **partially sighted** have a visual acuity of 20/70. Being partially sighted should be taken to mean the mid-point between normal sight and blindness. People so classified do carry out most of their daily activities by using their remaining vision to the fullest. Many of them suffer from myopia (short-sightedness), hypermetropia (long-sightedness) and astigmatism (blurred vision).

Myopia is a condition in which the eye continues to lengthen during the growth of a child to complete stature. Distant objects are out of focus. This is because instead of rays of light or object entering the eye to fall exactly upon the retina the object or light forms an image in front of the retina causing distant objects to appear blurred. The eye that has this kind of problem is unable to achieve focus of the image on the retina. A child suffering from myopia finds it difficult to read material from the chalkboard, from the back seat, stoops over reading material, gets tired easily while using the eye, etc. Myopia can be corrected with concave optical lenses in spectacles.

Hyperopia / Hypermetropia is simply an error of development of the eyeball in which distant objects are seen clearly but closer objects appear blurred. The error causes the eyeball to be oval in shape instead of being spherical. As a result of the oval shape of the eyeball, the light rays entering the eye focus behind the retina, causing a blurred vision. Hypermetropia can be corrected by spectacles with a convex lens.

Astigmatism is caused by an irregularity in the curvature of either the cornea or the lens. As a result, the light rays are refracted unevenly, such that those horizontal and vertical rays are focused at different points on the retina. The result is that the picture or impression that the eye “sees” is not sharp, clear and exact. In most cases, astigmatism can be corrected.

Presbyopia is a condition in which the lens of the eye loses its ability to accommodate near objects. Persons suffering from presbyopia usually have a blurred vision, difficulty with reading, experience “tired” eyes or aches while doing close work. Most people at the age of 40 and above develop some degree of presbyopia.

## 3.2 Causes of Visual Impairment

For a better understanding, visual impairment also can be grouped as we did in the case of mental retardation, under-pre-natal, peri-natal and post-natal periods.

### 1. Pre-natal Causes Birth

- If a pregnant mother is attacked by German measles during the first three months of gestation.
- Bleeding from the genital tract anytime from 28th week of pregnancy until the child is born. It is called antepartum hemorrhage.
- Hereditary factors like albinism.
- Congenital contract which is as a result of malnutrition during the period of the early life of the foetus when the eye lenses are still growing rapidly.
- Congenital diseases of the cornea, lens, retina or optic nerve.

- Heavy smoking during pregnancy
  - Venereal diseases
  - Drug abuse
2. Peri-natal Causes
- Delayed labour which causes traumatic pain to both mother and the child.
  - Wrong use of forceps during delivery.
  - Malpositioning of the child.
  - Retrolental fibroplasias- heavy application of oxygen on tender eyes especially in premature babies.
3. Post-Natal Causes
- Undue/severe pressure on the eye ball- Glaucoma
  - Malnutrition
  - Accident and injury
  - Illness
  - Cataract
  - Onchocerciasis (River blindness)
  - Trachoma disease
  - Old age (senility)
  - Diabetes
  - Keratitis (direct contact with discharges from the eye of an affected person.

### **3.3 Signs, Characteristics and Features of Visual Impairment**

1. Failing to complete long reading assignments or other school tasks involving extensive eye use, especially, when time is limited.
2. Student remembering and understanding material read to them better than that which they read themselves.
3. Confusing letters and words, which look some what alike.
4. Covering or scratching one eye while reading
5. Skipping letters, words or lines while reading.
6. Having difficulties of copying from textbooks, workbooks or blackboard / tempo-board.
7. Getting tired quickly or being distracted while working at the desk.
8. Being confused by details such as those appearing on maps and diagrams.
9. Writing unusually small or large characters, or very poorly.
10. Appearing clumsy and reluctant to participate in play.
11. Having poor-eye-hand coordination
12. Rubbing or brushing eyes frequently

13. Trusting the head forward or squinting when looking at near or far objects.
14. Complaining of dizziness and headaches.

### 3.4 Educating the Visually Impaired

We want you to know that it is the right of every child to go to school, his / her disability notwithstanding according to the United Nations declaration and as contained in the National Policy on Education. So, the visually impaired child has the right to good education in Nigeria. It will be a great disaster to the child and nation, if education is denied to a child and more importantly a child with special needs.

In Nigeria today, every child is given access to free education under the Universal Basic Education (UBE) up to Junior School Level, that is, JSS 3. The visually impaired child should be exposed to education early in life in order to overcome many emotional problems that are associated with the disability.

After a child has been diagnosed as having visual problem, it is at best to place the child on an educational programme that suits him. Such a child can be placed in a nursery school where meaningful materials are provided. Those materials provide a variety of experiences, such as size, texture, weight, moisture, dryness, coolness or hotness, etc. There should be educational toys that can appeal to their senses of touch hearing, smell and taste to compensate for their sense of sight that is missing.

In Nigeria, children with visual impairment can get to any level of education without much difficulty. There are a number of educational programmes that are available. Some of them are examined below.

1. **Special School:** In this case, the children with visual impairment are all together in the same school environment in training and learning together with experienced teachers e.g. Pacelli School, Surelere Lagos, Ogbomoso School for the Blind, Ogbomoso and several others.
2. **Integrated School:** In this case, both the sighted and the visually impaired are together in the same compound but may have separate blocks or classrooms for learning. This promotes social interaction and integration. Examples are the School for the Deaf and Pacelli School both sharing same environment but not completely mixed together.
3. **Inclusive Education :** This is a new innovation that encourages all categories of special needs children and their normal counterparts to learn, interact and socialise together in the same environment with individual child's needs taken into consideration.

Basically, in providing education for the persons with visual impairment, the environment should be conducive for easy accessibility and learning. Teachers of the visually impaired, according to Heward and Orlansley (1980), must be able to:

1. instruct the visually impaired pupils directly within the classroom and individually too;
2. obtain or prepare specialized materials;



3. put reading assignments into Braille, large print or tape recorded form.
4. interpret information on the child's visual problems and visual functioning to other educators and parents;
5. suggest classroom and programme notification which may be advisable;
6. help plan the child's educational goals and initiate and maintain contact with various agencies as well as keep records of services provided; and
7. consult the child's parents and other teachers.

### 3.5 Prevention of Visual Impairment

Visual impairment can be prevented in our society if not completely eradicated, if these steps are followed;

1. The public should be educated on the various sources, causes and effects of visual impairment.
2. People should report immediately to the various agencies responsible for eradicating some diseases if noticed in an environment without delay.
3. Trachoma disease, which is a major cause of eye problem, can be prevented by keeping the homes and environment clean since the disease thrives best in a dirty and overcrowded environment.
4. Regular eye examination should be introduction in schools and the society on the whole.
5. Self medication should be avoided, and any ailment should be reported to, and treated by, specialists.
6. Spectacles or eye glasses should not be used except if and when recommended by specialists.

---

## Study Session Summary



### Summary

In this Study Session you learned that visual impairment being one of the common exceptionalities is not a hidden case among people with special needs. The characteristics / features of children with these exceptionalities have been made clear. These exceptionalities have been clearly spelt out to assist teachers in helping the children with these exceptionalities. Different types of visual impairment have been examined as well as the causes of visual impairment in general. We equally discovered that they can be educated provided all needed materials are made available in our schools and the society on the whole. And, more importantly, ways of preventing visual problems were discussed in this Study Session.

# Study Session 4

---

## Learning Disabilities

### Introduction

In this Study Session, you will explore the field of learning disabilities and the peculiar problems associated with children in this disability category. We shall present to you: the nature of problems in learning disabilities; historical background; definitions; peculiar characteristics; specific types and educational challenges of learning disabilities. We shall also attempt to discuss classroom management strategies for learning disabilities.



#### Learning Outcomes

When you have studied this session, you should be able to:

- i. *discuss* the historical background to learning disabilities
- ii. *describe* learning disabilities.
- iii. *point out* the characteristics of learning disabilities.
- iv. *distinguish* between the different types of learning disabilities.
- v. *outline* the causes of learning disabilities.
- vi. *highlight* the procedure for identifying learning disabilities.
- vii. *present* effective management strategies for children with learning disabilities.

### 4.1 Historical Background to Learning Disabilities

Learning disabilities is one of the fields in special education that is historically significant. The category of children were identified long after other categories of children with disabilities like mental retardation, visual impairments, hearing impairments, physical handicaps etc. have been already organised in schools and receiving functional services.

Historically, the discovery of children with associated symptoms of learning disabilities started when teachers continuously reported persistent academic failures of some children in their classrooms. Such children were not able to learn what the teachers taught, despite sound teaching. These children were reported to have normal growth and sound health. When such cases were brought to hospitals, medical doctors could not pinpoint any health problems. Later on, scanning of the brain revealed different kinds of brain abnormalities. They were then described as children with brain disorders, neurological impairments, and perceptual handicaps. It was later in 1963 that the term ‘learning disabilities was accepted as the official and professional term for the field. Children with learning disabilities have problems generally associated with poor learning in academic and social skills.

## 4.2 Definition of Learning Disabilities

To enable you understand more about stages of conceptualisation of activities in the field, we shall explore some of the definitions/descriptions as they were given historically. These various definitions will be discussed below with reference to the authors. You will need to take note of the key words in each description or definition.

Kirk 1963 identified learning disabilities as:

*“a disorder or delayed development in one or more of the processes of speech, oral language, reading, spelling, writing and arithmetic. This disorder may result from a possible cerebral dysfunction or emotional or behavioural disturbance and not from other areas of exceptionalities”.*

Batman 1965 defined learning disabilities as

*“a manifestation of an educationally significant discrepancy between the estimated intellectual potential and the actual intellectual performance related to basic disorders in the learning processes; it may or may not be accompanied by any demonstrable central nervous system dysfunction that is not secondary to generalised retardation, educational or cultural deprivation, severe emotional disturbances or sensory loss”.*

Bateman’s description clearly suggests that there is the presence of a disorder, which brings about a disparity in the performance of children with learning disabilities and other (normal) children.

Gallagher 1966 posits that:

*“learning disabilities as the characteristic traits found in children that manifest developmental disparity significant enough (about four (4) years or more) as to require the instructional programme (special education) appropriate to the nature and level of the deviation in the development process”.*

Johnson and Mykleburst (1967) describe learning disabilities as:

*“a neurological dysfunction or brain impairment, an altered process and not generalised incapacity to learn”.*

Invariably, they suggest that children with such learning problems are considered as having psycho-neurological learning disability. The implication of this is that behaviour must have been disturbed due to the dysfunction of the brain. The nature and diversities of learning disabilities have evoked further comments.

Lerner described children with learning disabilities from a psychological point of view, attempting to capture the observed confusing nature of this disorder. He stated that:

*“although children with learning disabilities are not blind they do not ‘see’; they do not ‘hear’ even though they are not deaf; neither are they able to develop normally or learn in any normal process though they do not have mental retardation”.*

You should note that all the above definitions/ descriptions all have

**Note**

different dimensions of emphasis that made it difficult to bring the observed difficulties of the children under one umbrella.

**Consideration of some Harmonised Definitions**

These definitions are more professional in outlook. They were developed by groups of people who were commissioned by government agencies, associations made up by parents of children with related problems and professionals from related disciplines. These definitions, at one point or the other, tried to look at the common features of problems associated with learning in order to harmonise them into one platform. Harmonised Definition of Learning Disabilities includes the ones provided by:

- Federal Definition
- National Joint Committee on Learning Disabilities (NJCLD)

**Federal Definition of learning Disabilities**

Education for All Handicapped Act defined learning disabilities as a specific learning disability. It means a disorder in one or more of the basic psychological processes involved in understanding or in using languages spoken or written, which may manifest itself in an imperfect ability to listen, think, speak. The term includes such conditions as perceptual handicaps, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia. The term does not include children who have learning problems, which are primarily the result of visual, hearing, or motor handicaps, of mental retardation, of emotional disturbance, or of environment, cultural, or economic disadvantage.

**Definition by NJCLD**

NJCLD defined learning disability as a general term that refers to a heterogeneous group of disorders manifested by significant difficulties in the acquisition and use of listening, speaking, reading, writing, reasoning or mathematical abilities. These disorders are intrinsic to the individual and presumed to be due to central nervous system dysfunction. Problems in self-regulatory behaviours, social perceptions, and social interaction may exist with learning disabilities but do not by themselves constitute a learning disability. Even though a learning disability may occur concomitantly with other handicapping conditions (for example, sensory impairment, mental retardation, social and emotional disturbance) or environmental influences (such as cultural differences, insufficient/inappropriate instructions, psychogenic factors), it is not the result of those conditions or influences.

An analysis of these definitions shows us that a child has specific learning disability under the following categories:

1. The student fails to achieve at the proper age the required ability level in one or more of the several specific areas when provided with appropriate learning experience.
2. The student has a severe disparity between supposed achievement and intellectual ability levels in one or more of the seven areas, oral expression, listening, comprehension, etc. mentioned above.



To understand learning disabilities properly, you must relate it to the following facts:

1. There must be disorder in one or more of the basic psychological processes i.e. internal prerequisite skills of learning, such as memory, auditory perception, visual perception and oral language.
3. There must be an obvious difficulty in learning basic school subjects, especially, listening, speaking, reading, spelling and writing.
4. Different types of children are served under this group, which means the group is heterogeneous.
5. Learning disabilities are not caused by any other handicapping conditions, such as deafness, blindness, motor impairments, mental retardation, emotional imbalance, and economic, environmental or cultural disadvantages.
6. There must be a wide disparity between achievement and ability potential. The disability has nothing to do with the environment of the child. In other words, the disability is not extrinsic, but intrinsic.
7. The central nervous system is always connected with the cause of any learning disability. Any dysfunction in the central nervous system results in one form of learning disability or the other.
8. Adults can also suffer from learning disabilities.
9. Learning disabilities can equally occur together with other handicapping conditions.

### Note

You should note that these harmonised definitions of learning disabilities direct the operational basis of determining who actually is eligible, that is, really qualified to receive attention under learning disability services.

## 4.3 Characteristics of Learning Disabilities

### Characteristics of learning disabilities

Behavioural manifestations that sometimes give us clues of who might be suspected of having a learning disability

We have looked at the definitions of learning disabilities. We shall now examine some basic **characteristics of learning disabilities**. We like to draw your attention to the fact that the characteristics of learning disabilities are by no means identification criteria for learning disabilities. We will highlight some common characteristics and give brief explanations of each of them. You should note that it may not be possible or easy to bring out all the characteristics of human behaviour, bearing in mind that no two individuals are the same. However, there are some characteristics that are common to children with learning disabilities. Observable behavioural characteristics of children with learning disabilities include the following:

1. Hyperactivity
2. Withdrawal syndrome
3. Emotional instability

4. Attention deficit
5. Clumsiness/awkwardness
6. Low frustration tolerance
7. Perseveration
8. Acting on impulse
9. Perceptual motor impairments
10. Poor cognitive information processing
11. Poor academic achievement
12. Differential intelligence

### **4.3.1 Hyperactivity**

Majority of children with learning disabilities are hyperactive; they seem restless at all times. Children with learning disabilities find it difficult to remain at a particular sport or engage in a particular activity for a long time. Hyperactivity consists in excessive physical movements and shifting of attention from one thing to the other at very short intervals. Hyperactive moments prevent such children from learning, and they can also distract other children in the classroom. Hyperactive children fidget a lot and there is a general involvement in unconscious active movements in hyperactive children. In the classroom, they appear to be busier than their peers and this is at a level that will attract the teacher's as well as their peers concern.

### **4.3.2 Withdrawal Syndrome**

Some children with learning disabilities withdraw themselves from others in the same environment. Withdrawal syndrome is the habit or attitude of isolating or distancing from others. When this becomes a regular occurrence, then has assumed a problematic dimension it is a problem. Children displaying such characteristic may refuse to join others in carrying out any activity in and outside the classroom. Such a child may doze off, while teaching and learning is going on in the classroom.

### **4.3.3 Emotional Instability**

Emotional instability refers to an unbalanced emotional status. Some children with learning disabilities exhibit emotional outburst at unexpected times. They react negatively even when the situations does not warrant it. They display temper tantrums – one moment they may flare up; the next moment, they are sober or cheerful. Somebody meeting them for the first time would definitely conclude that their behaviour is unusual.

### **4.3.4 Attention Deficit/Short Attention Problems**

Children with learning disabilities have short attention span. They are not able to listen or pay attention to a particular task or the teacher for a long time. They may not focus on the task, or content of instruction for a long time when a lesson is being presented. Every lesson may look cumbersome and appear impossible to them. The consequence of this is that they get easily distracted. Any little noise in or outside the classroom is enough to shift their focus away from what they are being taught. In such a case, the teacher is likely to call on the child continuously in order to re-direct and bring back his or her attention to what is being taught.

### **4.3.5 Clumsiness and Awkwardness**

This is another characteristic that marks out children with learning disabilities. Being clumsy is an indication of a poor spatial perception and orientation. Some children with learning disabilities are usually not always smart. They can easily break up things around them at home and at school. There is always an inability to be mindful of objects around them, they do not know how to handle or take proper care of things, both at school and home. They always spill things on the floor; knock or hit their foot against a table or chair consistently etc. Children with learning disabilities can easily destroy things with ease even though they may show a remorse when this happens. This makes them to be seen as destructive individuals.

### **4.3.6 Low Frustration Tolerance**

Abandoning a task half way is always easy for children with learning disabilities. They are easily frustrated. They lose hope and give up trying an academic task or other skills related tasks easily. They do not show the strong will to try more or engage in regular practice in order to master a skill or task. Getting fed up easily with something occurs all the time that is why they are not pushing forward in the classroom, and this also occurs even at home.

### **4.3.7 Preservation**

This is also referred to as attention fixation. That is, focusing attention on a particular task longer than is necessary. Children with learning disabilities often fix attention on trying to perform a particular task for a very long time without trying to let go. They may be doing it wrongly but still insist on continuing on that task. An example of attention fixation or preservation is when a child scribbles rough lines on his or her book or trying to write something, and he or she does this rigorous scribbling over and over again without wishing to stop. Even when the teacher tries to stop that activity, the child would insist on carrying on.

### **4.3.8 Acting on Impulse**

Children with learning disabilities often act on impulse. Acting on impulse occurs when one reacts to a stimulus without having any thought over it. Impulsive movements or reactions may appear too sudden to people around. At times children react in this way to their peers without any reason for such. An example of this is assuming a child wishes to write the letter 'A' in the exercise book. After many trials and the letter could not be formed successfully, the child can just tear his exercise book to pieces, throw away the pencil or even break the pencil into two or more pieces. This child can be without even looking at the teacher or anyone else.

### **4.3.9 Perceptual Motor Impairments**

Children with learning disabilities have problems of motor in coordination. They experience poor gross motor and fine motor coordination. This manifests poor eye-hand and general movement's coordination. They may find it difficult to write or to copy things from

the chalkboard into the exercise book. Most times, it appears as if their eyes were in harmony with the hand. In such cases; there will be an obvious poor performance of the task assigned. Children with such problems may not be able to catch balls in the air or actively engage in sporting activities. Perceptual problems can greatly retard the progress of children with learning disabilities in the classroom. Where a child is not able to perceive letters properly as a whole but sees them as separate entities, it becomes very difficult to pronounce or read.

#### **4.3.10 Cognitive Information Processing**

Cognitive information processing relates to the way an individual acquires, retains and manipulates information. This manifests in various ways in the processing of visual and auditory information. Children with learning disabilities have problems of memorisation. They find it difficult to recall past lessons or skills the teacher taught them. This is why they are described as having short attention and memory span. They generally perform poorly on all memory tasks. They lack organisational skills and they also find it difficult to develop an active learning style and strategies of directing their own learning, as a result of a lack of meta-cognitive functions.

#### **4.3.11 Poor Academic Achievement**

Children with learning disabilities have problems of low and very poor achievement in school. Poor academic achievement is one of the reasons for the creation and development of this field. Anyone would know that something is definitely wrong somewhere. Not only are they performing below their peers; they also achieve below their potentials at very significant levels. This could be in any subject area or in all areas.

#### **4.3.12 Differential Intelligence**

Children with learning disabilities generally are described as having above-average or average intelligence. This is a major differentiating factor between the mildly retarded children and the learning disabled.

#### **Note**

Children with learning disabilities also exhibit secondary behavioural disorders. These behaviours are not specific to any particular level of intellectual functioning i.e. whether below, average, or above average intellectual level. There is also an identified variability between areas of functioning in both intellectual and performance abilities. The emphasis here is that children with learning disabilities can perform or carry out various skills at different levels. They can be very good in a craft and be poor in painting, etc. This is referred to as intra-individual variability.

You must always remember that these are not to be relied on as the sole identification process. The characteristics are only a behavioural manifestation of children who face problems associated with learning disabilities. Identification of children with learning disabilities cannot be based only on behavioural characteristics. So, before any conclusion can be made, a comprehensive assessment of the individual (child or adult) should be carried out.



## 4.4 Types Learning Disabilities

We have described the behavioural symptoms found among children and youths with learning disabilities. You should by now be able to mention those behaviours one after the other. It is important for us to look at some of the specific types of disorders in learning disabilities.

Specific disorders in learning disabilities, irrespective of behavioural symptoms can be grouped into specific types of disorders. These various sub-types of learning disabilities have already been examined earlier under in the harmonised earlier in this Study Session; they include the following:

1. Oral language difficulties
2. Reading
3. Writing and spelling
4. Arithmetic

## 4.5 Causes of Learning Disabilities

It is important to let you know that all the learning disabilities irrespective of the specific types have been traced to some cluster of causes. Due to the diversity of these causes, they will be discussed under the following subheadings:

1. Neurological causes
2. Maturational delay
3. Biochemical imbalances
4. Genetic causes
5. Environmental causes
6. Other unknown causes

### 4.5.1 Neurological Causes

The history of early research findings related the major cause of learning disabilities to brain injury or neurological dysfunction. Since the evolution of this field, majority of the professionals have imputed brain damage as the main cause of learning disabilities in an individual. This is visible in definitions of learning disabilities as a neurological dysfunction or impairment in the brain.

Brain damage can occur during the pre-natal, natal or post-natal stages. It could happen due to accident or any physical trauma that directly affects the brain. At the natal stage (during birth), brain damage can occur when there is a lack of oxygen-anoxia, misuse of forceps, rhesus incompatibility (R-h factor) and so on. Incidents like shock and disease can inflict neurological damages in an individual whether young or old. Learning disabilities can set in as a result of this. Brain damage or neurological dysfunction is however only a presumed cause of learning disabilities. The actual cause might remain undetected even after thorough assessment and examination have been carried out.

### **4.5.2 Maturational Delay**

Maturational delay is connected to neurological imbalance. Maturational delay occurs where a child does not develop some behaviour characteristics at the time he or she is supposed to do so. An example is when a child fails to talk until he or one is two years old. Maturational delay can occur if the brain or the entire neurological system delays in developing. Some types of learning disabilities faced by some individuals have been traced to delays in the maturational process. Generally, most children with learning disabilities have immature behaviours when compared to other children in the same age group. This is a strong indication that maturational delay plays a major role in the causes of learning disabilities whenever they occur.

### **4.5.3 Biochemical Imbalances**

Biochemical imbalances have also been speculated as the causes of learning disabilities. Research has shown that hyperactivity and learning problems encountered by children with learning disabilities could be caused by artificial food colourings and flavouring contained in most foods children eats. He therefore suggested that such children should be placed on special diets that contain no artificial substances. Though it has not been sufficiently substantiated, some research has shown that withdrawal of artificial food colourings and flavourings have been reported to have reduced hyperactivity to a significant level.

### **4.5.4 Genetic Causes**

Heredity has been found to be one of the major factors causing learning disabilities. Some children with learning disabilities inherited the traits from their parents. This is common where there is the occurrence of one genetic abnormality or the other. In families where one of the parents or both have learning disabilities one of their children is likely to inherit the traits, especially, where the cause of the parents' learning disabilities is genetically inclined.

### **4.5.5 Environmental Causes**

The environment generally implants certain behavioural influences on children. Environmental influences can be measured or detected by the outward behaviours of individuals both at home and at school. Children pick up some forums of unwanted behaviour from their environment. Because of this; some children misbehave and become stubborn, lazy, dirty, play truancy, become very disruptive and so on. This could be a direct influence of the environment. Lack of proper teaching techniques and methods can also include learning disabilities in children. Lovett listed emotional disturbance, lack of motivation and poor instruction as direct consequences of environmental influences. Most children with learning disabilities exhibit behaviour disorder and some are not easily motivated.

Other environmental influences include lead poisoning, fluorescent lighting, food additives, radiation stress, and unshielded television tubes, smoking, drinking, drug consumption, ill health, parental abuse and

neglect, cultural differences, poor funding of education, poor nutrition, and so on.

### 4.5.6 Unknown Causes

Some children’s learning difficulties may not be traced to any known cause. In such cases, the children may have normal development and maturation but may still experience poor cognitive achievement. Usually in such groups, no deficiencies will be found except in one or two areas of basic academic or social skills.

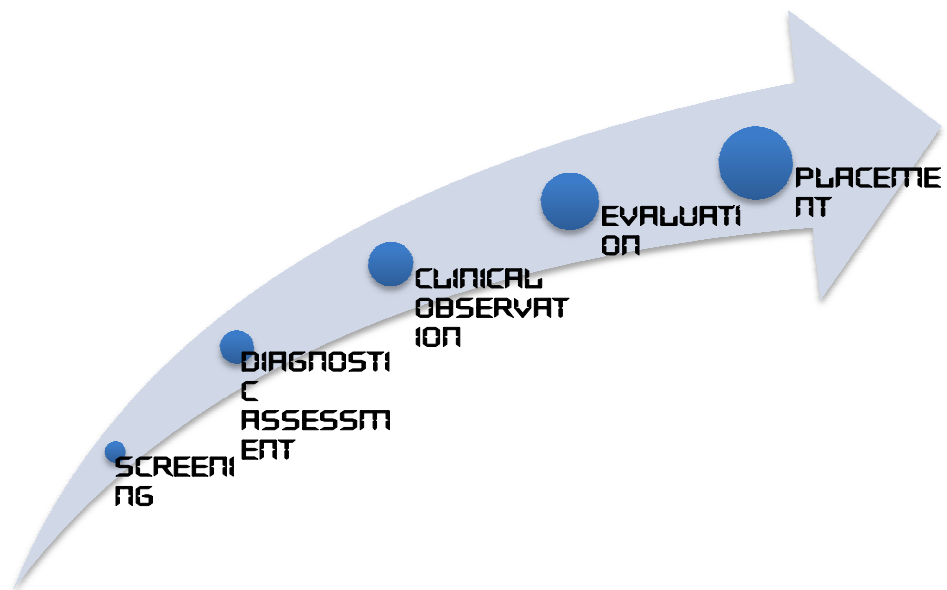
**Note**

The causes of learning disabilities have no direct relationship with their intervention. Thus it is only a minute part of identification procedures.

## 4.6 Identification of Learning Disabilities

Procedural identification of learning disabilities must be carried out before effective intervention can start. We highlight the steps involved in identification of learning disabilities in Fig 4.1

Fig 4.1



## 4.7 Challenges of Learning Disabilities

### 4.7.1 Challenges of Learning Disabilities to Educators

There is need for you to understand that the diverse characteristics of the population with learning disabilities induce diverse problems for children and youths in a regular classroom. They generally have poor academic achievement and present a lot socio-emotional problems that are quite difficult to handle in the regular classroom. Thus the different characteristics of learners and their learning styles should be taken into consideration by the teachers.

### **4.7.2 Challenges of Learning Disabilities to Specialists**

Apart from academic qualification, a learning disabilities specialist should have a clear understanding of the following:

1. There is need to cater for the diverse needs of all the students in a class. Teachers should carry out a general class assessment before teaching each child.
2. The different characteristics of the learners and their learning styles should be taken into consideration, in order to ensure that every student reaches his or her maximum potential.
3. There is need for the teacher to see that the learning style and communication style of each student is taken into consideration when evaluating or teaching him or her.

### **4.7.3 Strategies of overcoming the challenges of learning disabilities**

Teachers of children with learning disabilities must be able to carry out the following duties.

1. Assessment of the behaviour and academic difficulties of learners in this group before teaching.
2. Planning appropriate task specific lessons for different types of sub-categories of learners.
3. Conduct explicit teaching that is effectively targeted at reducing the impact of the difficulties on individual learners.
4. Manage different kinds of behaviour problems associated with learning disabilities.

#### **Advice for Learning Disabilities Teachers**

To be able to work effectively with individuals with learning disabilities, the following issues are necessary for effective teaching.

1. Make up your mind to work successfully with individuals with learning disabilities.
2. See every case/individual as teachable and hope for success.
3. Be ready to devote time to study your clients; be a good listener and watcher.
4. Encourage the learners to put in efforts in their study; do not insult or discourage them; rather, be friendly and supportive.
5. Teach students how to understand different learning processes and strategies.
6. Encourage group decision-making and consequences.
7. Provide opportunities for the students to be involved in the development of personal learning outcomes.
8. Build students' self-esteem through the establishment of positive classroom management.
9. Use a range of teaching techniques and incorporate the use of a range of appropriate technologies.

10. Build your teaching upon the students' experiences and skills and leave gaps.
11. Use varying assessment procedures in recognition of individual differences.
12. Teach elementary organization skills and processes.
13. Use simple assignment techniques to promote students' organisational skills.
14. The period of lesson should be shortened to accommodate the short attention span of the individuals with learning disabilities.
15. Learning tasks of whatever nature should be within the interest of the individuals.

---

## Study Session Summary



### Summary

In this Study Session, we have examined learning disability. We thus gave a good background to learning disabilities, definitions of learning disabilities and also examined some basic characteristics of children with learning disability. We also touched on the fundamental causes of learning disability, how they can be prevented as well as the strategies for countering the challenges of learning disabilities.



# Study Session 5

## Communication Disorders

### Introduction

Majority of school children have various types of communication and language problems, which usually disturb the learning and adjustment in school if they are not checked. In this Study Session therefore, you will be exposed to the concept of communication disorders and its properties. We shall present to you descriptions of normal communication process as well as speech and language components of communication. We shall also discuss normal development of speech and language, the nature of communication disorders characteristics types causes, identification and instructional strategies involved in communication disorders. All these and more shall be our focus.



#### Learning Outcomes

When you have studied this session, you should be able to:

- i. *discuss* the functions of communication to man;
- ii. *contrast* speech and language components of communication;
- iii. *point out* communication disorders;
- iv. *outline* at least two treatments and instructional strategies for managing communication disorders in children.

### 5.1 What is Communication?

Communication is the transmission of information between two people who usually act as a sender and a receiver. Communication is an interactive exchange of information, ideas, feelings, needs and desires. Communication involves encoding, transmitting and decoding messages. It enables us to relate with one another, understand the needs and feelings of one another.

#### 5.1.1 Elements of Communication a unit

For any communication to be meaningful there must be a process, which contains three structures. These three structures are:

1. The message
2. The sender who expresses or encodes the message
3. The receiver who responds to decodes the message.

Communication can be between people or within a person (self talk).

#### 5.1.2 Functions of Communication

It helps us to relate to one another and control our social environment. There are also other functions of communication. These are:

1. Expressing ourselves
2. Controlling our social environment

3. Information
4. Narrating
5. Making explanations
6. Making requests

## 5.2 Speech and Language

Human beings use speech and language systems to communicate. Speech is vocal; it uses words, it can be spoken or written. Speech is the oral production of language. Speech differentiates human beings from other animals because only human beings make speech sounds. It is the fastest and most efficient method of communication.

The processes of speech are:

- Respiration (breathing)
- Phonation: production of speech
- Resonation: sounding out of the spoken word
- Articulation: formation of specific recognizable speech sounds

Language is an acceptable tool used by a group of people to communicate with one another. Language is made up of a set of abstract symbols made up of sounds, letters, members, signs and gestures. Their abstract symbols are governed rules. Research has discovered that there are more than 600 languages spoken in the world.

### 5.2.1 Five Dimensions of Language

<b>Phonology</b>	Rules governing the sound system of language
<b>Morphology</b>	Combination of basic units to make meaning
<b>Syntax</b>	Arrangement of words in sentences
<b>Semantics</b>	Meaning of words and combination of words
<b>Pragmatics</b>	How spoken language is used to communicate

### 5.2.2 Normal Development of Language

Every child learns to speak without any formal process of teaching. All human beings are equipped with the ability to acquire language. Even though the rate of language acquisition may differ from child to child, most children follow a relatively predictable sequence in their acquisition of speech and language. There are some children who do not follow the typical patterns, due to developmental lag, ill-health or other factors. Hence their speech and language use is disordered.

## 5.3 Communication Disorder

Some people (children, youths and adults) however have difficulties communicating with other people. They face a lot of frustrations and encounter a lot of problems as they try to relate to other people day by day. Such people are known to have **communication disorders**. Children with communication disorders may not be able to express their desires, thought and feelings in spoken words coupled with poor listening habits

**Communication disorders** Impairment in



the ability to receive, send, process and comprehend concepts of verbal, nonverbal and graphic symbols system. This may be evident in the processes of hearing language and/ or speech.

are likely to face difficult situations in school. Communication disorders can be a limiting factor to total academic and social development of individuals.

When a child's communication abilities differ significantly from that of others, such a child is considered as being impaired in speech.

The general indications of communication impairment include:

1. Faulty transmission and /or perception of messages
2. Possible economic disadvantage
3. Learning disadvantage
4. Social disadvantage
5. Negative impact of a person's self esteem or emotional growth
6. Physical damage or endangered health

### 5.3.1 Types of Communication Impairment

There are 2 major types of communication impairment.

- i. Speech impairment and
- ii. Language impairment.

#### Speech Impairment

Speech is impaired when

1. It deviates so much from speech of others that it calls attention to itself.
2. It interferes with communication.
3. It Provokes distress in the listener or speaker.
4. There are errors in the production of speech sound e.g. poor production of speech sound. This is known as **articulation disorders**.
5. Difficulties with the flow or rhythm of speech exist e.g. stuttering and cluttering. This is referred to as **fluency disorders**.
2. There are **Voice disorders**, that is, problems with the quality or use of one's voice: e.g. husky, hoarse, breathy or strained; hypo-nasality or hypo-nasality.

Basic speech sound errors include:

Distortions: /s/ sleep for "schlep", "zleep" or "thleep"

Substitutions: substituting one sound for another e.g. p, b t, d,

Omissions: cool for school; air for hair etc

Additions: Adding extra sounds

#### Causes of Speech Impairments

1. **Cleft palate:** Paralysis of the speech muscles, absence of teeth, craniofacial abnormalities, enlarged adenoids, etc.
2. **Dysarthria:** Neuromuscular impairments in respiration, phonation, resonance and articulation. e.g. Phonological disorder (multiple sound errors, final consonant deletion as omission, and language delays).

## Language Impairments

This occurs when there are problems in any of the five dimensions of language.

The problems could be either receptive or expressive. **Receptive language impairment** means inability to comprehend spoken sentences or follow a sequence of verbal directions; while **expressive language impairment** refers to poor production of language due to limited vocabulary use of incorrect words & phrases or lack of speaking ability.

### Causes of language impairment

1. Cognitive limitations, mental retardation, hearing impairment, behaviour disorder, structural abnormalities of speech mechanism and environmental deprivation.
2. Injury to the brain e.g. Aphasia which is a loss of the ability to process and use language. This results often in adults due to (a) 'stroke' (b) head injury in children
3. Hereditary – genetic
4. Environmental influences



Children with communication disorders have problems, which can disrupt their normal social, academic participation in the society. These problems are visible and draw unpleasant attention to the speaker. Speech distortions, omissions, substitutions are caused by disruptions in the flow of breath within the speech organs, while language reception and interpretation may be wrongly perceived. Most importantly, identified children can be helped by early intervention in speech therapy and one-to-one instruction.

*Identification, assessment and treatment are by tackling specific problems by speech pathologists.*

## 5.3.2 Signs or characteristics of communication disorder

We have made you to understand in earlier discussion that communication involves two aspects – speech and language. The characteristics of these sub-categories of communication disorder shall be highlighted.

### Speech Errors

1. Articulation errors like substitution errors, omissions, additions omission errors.
2. Non-fluent speaking (dysfluencies), swallowing some words when speaking.
3. Stammering; stuttering or cluttering.
4. Poor voice quality-high or low pitch
5. Unusual voice level/sound (loud or soft sound)

### Language Errors

1. Difficulty in expressing oneself.
2. Difficulty in following oral direction

3. Difficulty in explaining oneself correctly
4. Production of wrong sentences
5. Inability to match letters with sounds.
6. Inability to break words into syllables
7. Poor word knowledge (vocabulary acquisition)
8. Demonstrate poor concept formation (Does not understand how to connect ideas.

### **5.3.3 Identification of Communication Disorders**

We have so far discussed characteristics and types of communication disorders. It is important to look at various identification processes that can be adopted in the classroom. The procedure for identification of communication disorders include teacher observation, screening and diagnostic evaluation.

#### **Teacher observation**

A child with communication disorders may experience difficulties in learning, if the teacher is not aware of his or her problem. Teachers have the privilege to detect these difficulties among the children they are teaching. As the teacher engages the children in daily interactions during teaching, the nature of the verbal responses they give will clearly display any communication difficulties.

Upon such discovery, the teacher should pass such information to the parents and the speech and language pathologist attached to the school for further screening and diagnosis.

#### **Screening**

Screening is the first stage of establishing the presence of communication disorder. Speech and language pathologist would conduct general screening.

## **5.4 Educational challenges of Communication Disorder**

Communication disorders occur at two levels (speech and language).

You should note that children with speech and language problems face challenges that may hinder them from benefiting from school programmes. Some of these challenges include:

1. Social and emotional problems such as embarrassment, guilt, frustration and anger created for them when they cannot communicate well; and also for those who cannot understand them very well.
2. Confusion and self-pity, and inferiority complex
3. Poor self concept
4. Aggression
5. Poor academic achievement
6. School drop out

### Implications for Teachers

1. It is important that teachers identify early, children with communication disorders in the classroom.
2. Teachers should be skilful in arranging classroom activities in a way these children will interact freely with their peers, and benefit maximally.
3. Teachers should be able to create language sensitive classrooms.

Bearing in mind the nature of characteristics of children with communication disorders and the educational challenges these pose, we shall next consider some instructional strategies that can be helpful in the classroom.

### Instructional Strategies for Children with Communication Disorder

Generally, it has been suggested that slight modification in teaching styles and classroom management is the key to making the classroom comfortable for children with communication difficulties (Smith, 2007; Salend 2005 and McCormick, 2005). Two key strategies here are: general instructional accommodation and language sensitive environment.

General instructional accommodation includes the building of language-sensitive environment.

Language sensitive environment is a classroom environment where the teacher is aware of the existing communication difficulties of some children in the classroom, and he makes a deliberate effort to provide opportunities for such children to use speech and language to express themselves and receive messages from others. According to Smith, 2007, language sensitive environments are classrooms that encourage, foster, and support language development. These children are assisted to mix freely with other children. The benefits of such an environment are:

1. It given students reason to talk
2. It encourages students to use new vocabulary words learned in class in other situations
3. It provides a model for the correct speech or language when any students make mistakes.

### Practical Tips for creating language-sensitive classroom

Fig 5.1 highlighted some practical approaches for creating language sensitive classroom.

Fig 5.1A

Receptive language
<ul style="list-style-type: none"> <li>▪ Replace directions and instructions when students appear confused.</li> <li>▪ Repeat instructions always.</li> <li>▪ Start with one-step instruction and gradually build up to</li> </ul>

multiple.

- Provide and use physical cues and prompts when giving instructions.
- Pair them up with other children
- Avoid 'Yes' and 'No' questions; rather ask the children to:
  - repeat the instruction to you
  - paraphrase contents in their own words
  - tell you what they understand about the activity or topic of discussion.

Fig 5.1B

#### Expressive language

- Ask for clarifications when the child uses non-specific vocabulary. Point out to them that their verbalisation was not clear.
- Create opportunity for students to use new vocabulary and talk about concepts.

Fig 5.1C

#### Pragmatics

- Teach and practice how to interpret facial expressions and body language.
- Teach scripted responses for certain social conventions.
- Teach the importance of different registers and when and how to use them.

Fig 5.1D

#### Content Enhancement

- Teachers should be aware that such children have a special need.
- Teachers should be able to use simple methods of instruction that will enable those children benefit maximally.
- Use graphic organisers and charts to help children organize and remember important concepts.

---

## Study Session Summary



### Summary

In this Study Session you learned the functions of communication to man. You were also exposed to components of speech and language of communication. Finally we pointed out communication disorders; and outlined at least two treatments and instructional strategies for managing communication disorders in children.

---

## Bibliography

### Textbooks

### Web Resources

McCornick, L. (2008). Language intervention and support. In L. McCornick, D.R. Loeb, & R.I. Schiefel Busch (Eds), *support children with communication difficulties in inclusive settings: School-based language intervention*. Boston: Allyn and Bacon.

Salend, S.J. (2005). *Creating inclusive classrooms: Effective and reflective practices for all students* (5th edition). Columbus, OH: Merrill/prentice Hall.

Smith, D.D. (2007). *Introduction to special education: Making a difference* (6th Ed.) Boston; MA: Pearson Education Inc.



# Study Session 6

---

## Autism Spectrum Disorders

### Introduction

Some children are clearly and consistently performing below their age groups in many areas of endeavour-academic, social, language, and self-care skills. This deficiency is obvious to anyone who interacts with them, and this calls for special education and related services to help them realize their potentials.

When you have studied this session, you should be able to:

- i. *point out* the characteristics of children with autism spectrum disorders (ASD);
- ii. *outline* causes of ASD
- iii. *differentiate* the types of ASD; and
- iv. *highlight* classroom management strategies for children with ASD.



#### Learning Outcomes

### 6.1 Characteristics of Children with Autism Spectrum Disorders (ASD)

We shall discuss a range of behaviour that can be easily observed in a group of children with autism spectrum disorders in any setting. These are:

- A. **Poor eye-contact:** Children with autism do not naturally look at people's faces. They make effort to avoid lifting up their heads or look upwards into other people's faces. Even when they try to look at faces, their eyeballs move across or above the head, not directly resting on the other person's eyeballs.
- B. **Absence of speech:** Majority of children with autism always seem to be deaf and dumb. They hardly respond to spoken words or communicate fluently with spoken words. Speech seems to be delayed in a larger population of children with ASD.
- C. **Poor social interaction:** Children with ASD are generally withdrawn from other children. They usually like to stay away from other children instead of playing with their peers or siblings.
- D. **Abnormal play pattern:** Children with ASD do not get excited by the same toys the same way other children do. They usually get attached to a part of the toy or object rather than the whole toy. For example, the hair on a doll or the wheels of a toy car, etc may be the only thing that interests them out of the whole toy.
- E. **Repetitive behaviour:** Children with ASD engage in unusual repetition of actions and activities that are not relevant to the context at any particular time. They shake hands or rock their bodies unnecessary in a strange pattern. This is also referred to as stereotypes; which stand for purposeless movements such as hand flapping, head rolling, or body rocking, etc.



- F. **Compulsive behaviour:** They demonstrate high ability to follow specific routines of their own, such as arranging objects in a particular style all the time.
- G. **Resist changes:** Children with ASD resist changes in their activities. Once they have been used to a particular pattern, they find it difficult to let go.
- H. **Restricted behaviour:** Such children clearly seem to have very limited interest and choice of activities. They are also limited in focus and interest. They may prefer to watch a particular video, music track every day, etc.
- I. **Self injurious behaviour:** Children with autism do not feel pain. So they often engage in activities that can injure them, and inflict pain on them. They bite themselves, slap and bend their heads against hard surfaces. They can even put their fingers inside fire if unguarded.
- J. **Unusual response to sensory stimuli:** They seem to over react to sound and slight internal stimulation. Some may just take off jumping, shouting.
- K. **Selecting:** Children with ASD select what they eat and also refuse food. This behaviour is strange because despite their loss of appetite they do not experience malnutrition.

We have highlighted numerous characteristics. You may still come across many more as you search the Internet. You must understand that these are not exhaustive but these characteristics are generally found and easily noticeable among children with ASD.

## 6.2 Causes of Autism

The specific cause of ASD is not known. Autism has been related to biological disorder rooted in abnormal brain development. Some of the research findings that confirmed such include:

1. Improper development of the brain: Some of the cells and connection in the brain of a kid with autism especially those that affect communication, emotions, and senses – do not develop properly or get damaged.
2. Presence of gray matter in parietal lobes of the brain that control social processing and sight-based learning (Dowstoen, 2008).
3. Enlarged gray matter in the parietal lobes of the brain linked to the mirror neuron system of cells associated with empathy, emotional experience and learning through sight (Reuter, 2007).
4. Genetic and environmental factors can also be responsible (National Institute of Neurological Disorders and Stroke (NINDS) 2008 Wikipedia, 2008).
5. Abnormal levels of hormone in the brain (serotonin and neurotransmitters).
6. Chromosomal abnormalities such as deletion, duplication and inversion
7. Teratogens agents: All other factors

## 6.3 Types of Disorders in Autistic Spectrum

The autistic spectrum connects conditions with some similar characteristics that vary so much at the same time in the actual behavioural patterns. They exhibit five different groups that have been identified. These include

Autism

Sperger syndrome

Rett syndrome

Childhood disintegrative disorder (CDD)

Pervasive developmental disorder – not otherwise specified (PDD-NOS)

### Autistic Spectrum Disorders and Related Conditions

We want you to know that children with ASD usually have other accompanying problems. This problem complicates their ways of living and makes management more challenging. We will make brief comments about these related conditions.

- **Attention Deficit and Hyperactivity Disorder (ADHD):** This combine inattention and restlessness. Majority of the ASD population present this problem.
- **Motor problems:** This includes poor muscle tone, toe walking gaits and general problems with large and fine motor coordination.
- **Eating disorders:** Eating disorders are very prominent in the majority of children with ASD. They stick to only one type of food, or observe abnormal eating habits, and /or refuse food totally and still manage to remain.
- **Gastrointestinal problems:** Many children with autism also have stomach disturbances especially in connection to some classes of food.
- **Sleeping disorders:** children with ASD experience different kinds of sleep problems. These problems such as intestinal dysbiosis abnormal intestinal permeability and nutritional derangement include difficulty in falling asleep, frequent nocturnal awakenings, early morning awakenings, absence of sleep at night, etc.
- **Mental retardation:** Majority of children with autism also have mental retardation as an additional disorder. This accounts for the overall low cognitive development in most of them.
- **Learning difficulties:** This is a close association of learning difficulties in some children with autism. This manifests in the uneven display of skills. They show high ability in one skill and perform very poorly in the other. This can be referred to as differential intelligence.

## 6.4 Challenges and Implications for Autism

There is no cure for autism. Most children with autism lack social support, meaningful relationship, and self-determination. All these problems are induced by the deficiencies in the three crucial aspects of life that is, social interaction, communication and response to one's

environment. Thus, educational programmes must be directed to focus on the following:

1. Improving social interaction
2. Enhancing communication and language use
3. Reducing abnormal behaviour by training them on appropriate behaviours
4. Training in self-management and vocational skills to enhance life in adulthood.

### Implications for Treatment

1. Treatment of autism should be focused on reducing associated deficiencies and family distress.
2. General Educational Guidelines for Managing Children with ASD

### Intensive and sustained special programmes

1. Clearly diagnose/differentiate the symptoms.
2. Give one-to-one instruction
3. Train on eye contact
4. Give one-step direction at a time
5. Work around the child's interest
6. Introduce peer directed activities

### Classroom Strategies for Children with Autistic Spectrum Disorders

Fig 6.1

Pattern for teaching sessions
<ol style="list-style-type: none"> <li>1. Brief historical background</li> <li>2. Definitions</li> <li>3. Characteristics</li> <li>4. Categories/types/classification</li> <li>5. Identification</li> </ol>

## Study Session Summary



### Summary

In this Study Session we discussed the characteristics of children with autism spectrum disorders; and its causes. We identified the types of ASD and related conditions. Finally, we explored classroom management strategies for children with ASD.

# Study Session 7

---

## Physical and Health Impairments

### Introduction

Children, youths and adults with physical and health impairments are found even in our immediate environments. In this Study Session, we shall introduce to you conditions that are found under this type of disability group. We shall present to you the definitions, characteristics and types as well as causes of these disorders. We shall also introduce to you the educational challenges and implications and finally practical strategies for managing his population in the school setting.

When you have studied this session, you should be able to:

- i. *describe* the nature of physical and health impairments;
- ii. *point out* different type of physical and health impairments;
- iii. *present* guidelines for providing education that is effective for persons with physical and health impairments



### Learning Outcomes

## 7.1 Nature of Physical and Health Impairments

**Physical and health impairments** A general term used to describe children with various problems that are related to incomplete possession of limbs, and skeletal features, as well as those with different health or disease conditions.

We want you to note the following important points about **physical and health impairments**.

- Physical and health impairments are not diseases.
- Cannot be cured, but can only be managed medically.
- Their symptoms usually get reduced as children grow older
- Many of them are neither contagious nor fatal.
- Many of them are not inherited
- They could be mild, moderate or severe.

## 7.2 Categories of Physical and Health impairments

Heward 2003 grouped **physical and health impairments** under two categories:

1. orthopedic and neuromotor
2. other health impairments

**Orthopedic impairments** are impairments caused by congenital anomaly. Congenital anomaly describes malformation that a child is born with. They can also be described as primary malformations that are sustained present at birth. Examples of orthopedic impairments are:

- a. club foot (toes fused together or absence of toes), which resulted from congenital anomaly.
- b. Diseases like poliomyelitis bone tuberculosis.
- c. Cerebral palsy, amputations, fractures and contractures (malformations from burns).

Children with physical disabilities can have a combination of orthopedic and neuromotor impairments. **Neuromotor impairments** involve the central nervous system dysfunction. Neuromotor impairments can restrict the ability to move, use, feel or control certain parts of the body Smith 2007, Heward 2003. It can induce general paralysis of the limbs or body.

Orthopedic impairment relates to the body skeleton (such as bones, joints, limbs and muscles) neuromotor relates to the central nervous system. Physical impairments have elements of both orthopedic and neuromotor impairments.

### 7.3 Educational Implications for Children with Physical and Health Impairments

We made you to understand that physical and health impairments are made up of various types of conditions. Each of them has different management approaches. While some need constant medical care due to frequent reoccurring symptoms, some need continued assistance and enhanced accessibility to programmes and services.

The implication of this is that the school should always provide appropriate education that will suit their various needs (Heward 2003). However some general guidelines can be followed.

1. Modifications of classroom setting
2. Provision and use of adapted technological equipments.
3. The use of assistive technologies for mobility and communication.
4. Reduction in both duration in school activities services.
5. Provision of necessary health services.
6. Planning for adequate social integration with peers.
7. Provision educational, therapeutic and recreational activities.

---

## Study Session Summary



### Summary

In this Study Session we examined the nature of physical and health impairments; and we also explained different type of physical and health impairments. In conclusion we presented ways for providing education that is effective for persons with physical and health impairments

---

## Bibliography

### Textbooks

### Web Resources

IDEA (1997). *Individuals with disabilities education act (IDEA)*: PL 105-17 (1997). Note to the regulations for eligibility for children with attention deficit disorder.

Lerner, J.W. (2000). *Learning Disabilities: Theories, Diagnosis and teaching Strategies*. Boston: Houghton.

National joint committee on learning disabilities (1997). Operationalising the NJCLD definition of learning disabilities for ongoing assessment in schools perspectives: *The International dyslexia Association*, 23 (4), 29-33.

