

SPECIAL NEEDS AND INCLUSIVE EDUCATION

YEAR TWO

STUDENT'S BOOK

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FOREWORD

Dear Student,

Rwanda Education Board is honored to introduce to you the Special Needs and Inclusive Education book year two. This book is intended to equip you with knowledge, skills and attitude that are essential for your future. It is our sincere hope that the knowledge and skills you will acquire after covering this book will enable you effectively teach learners with Disabilities and other Special Educational Needs.

In this book, you will learn about the different categories of disabilities. You will understand the meaning of each category of disabilities and the causes of disabilities. In order to effectively teach learners with disabilities and other Special Educational Needs, it is important to be able to recognize the various characteristics that learners with different disabilities display. In this book, you will explore on the characteristics of learners with different types of disabilities.

Inclusion is the current goal of the global education reform for the provision of education to children with varying abilities and circumstances as recommended by national and international educational policies. The Ministry of Education has no intention to leave no one behind, we want to provide quality education to all, including children with disabilities and other Special Educational Needs. To achieve this mandate, you will learn about teaching and learning approaches/ techniques for effectively teaching learners with various disabilities.

This book will further introduce you to the intermediate level of Braille and Sign Language. It is my hope that by the end of year two, you will be able to use contracted braille and interact actively with deaf persons. Finally, you will be exposed to the practical aspect of preparing and delivering an inclusive lesson. In competence-based curriculum, learning is considered as a process of active learning where concepts are mainly introduced by an activity, a situation or a scenario that helps the learner to construct knowledge, develop skills and acquire positive attitudes and values. For effective use of this textbook, your role is to:

- Work on given activities which lead to the development of skills
- Share relevant information with other learners through presentations, discussions, group work and other active learning techniques such as role play, case studies, investigation and research in the library, from the internet or from your community;
- Participate and take responsibility for your own learning;

I wish to sincerely extend my appreciation to the people who contributed towards the development of this book particularly REB staff who organized the whole process from its inception. Any comment or contribution would be welcome for the improvement of this textbook for the next edition.

**Dr. NDAYAMBAJE Irénée
Director General, REB**

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I owe gratitude to Educate which allowed their staff to bring their expertise in the integration of skills lab pedagogy in all subjects especially the Special Need Education textbooks and financial support provided in development of those books.

Finally, my word of gratitude goes to the Rwanda Education Board staff particularly those from Curriculum, Teaching and Learning Resources Department who were involved in the whole process of TTC textbook production.

Joan Murungi,

Head of CTLRD

ABBREVIATIONS AND ACRONYMS

EBD	Emotional and Behavior Disorders
IE	Inclusive Education
CP	Cerebral Palsy
CwDs	Children with Disabilities
CBC	Competence Based Curriculum
CP	Cerebral Palsy
CTLR	Curriculum, Teaching and Learning Resources
GS	Groupe Scholaire
GT	Gifted and Talented
HVP	Home de la Vierge des Pauvres
HI	Hearing Impairment
OHI	Other Health Impairment
PTAs	Parents- Teachers Associations
PwDs	Persons with Disabilities
PD	Physical Disability
REB	Rwanda Education Board
SDGs	Sustainable Development Goals
SNE	Special Needs Education
SEN	Special Educational Needs
SLD	Specific Learning Disability
VI	Visual Impairment

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UNIT 1

LEARNERS WITH VISUAL IMPAIRMENT

Key Unit Competence: Trace characteristics of learners with visual difficulties and teaching approaches.



INTRODUCTORY ACTIVITY



If you meet someone working in the street, wearing sun glasses, using white cane:

- What comes in your mind?
- What kind of disability do you think that person may have?
- What are characteristics or traits that made you think the person has a disability?

1.1. Definition, causes and characteristics of Visual Impairment



ACTIVITY 1.1.

- What do you understand by the term "Visual Impairment"?
- What do you think can cause Visual Impairment?
- What could be indicators of someone having Visual Impairment?

1.1.1. Definition of Visual Impairment

The term "**Visual difficulties or Visual Impairment**" is used to describe any kind of vision loss, whether total or partial. Visual Impairment is an umbrella term that encompasses all types of vision losses). Visual difficulty can be:

- Any abnormality or problem in vision
- Any factor that can cause one to see less
- Inability of the eye or brain or both to visualize things in the normal way.

1.1.2. The causes of Visual Impairment

- **Parental problems:** Poor nutrition of pregnant mothers, eating foods that contain insufficient energy, proteins, vitamins and mineral salts; alcohol use, smoking or strong drug-taking; cultural practices where women are not allowed to eat some nutritious foods; premature births resulting in babies being born with premature retina.
- **Birth problems:** Inappropriate use of tools to deliver the baby; difficult during birth like anoxia (absence of oxygen in the brain) which can cause brain damage.
- **Malnutrition of the child from birth:** Lack of a balanced diet, especially insufficient vitamin A, which can cause night blindness or dry eyes.
- **Injuries:** Accidents which may affect different parts of the eye; brain damage due to injuries/disease; e.g. cerebral palsy; chemicals/poison in water, air and food, plus the use of traditional herbs; pregnant mothers exposed to dangerous chemicals at work; poor hygiene related to poverty and ignorance.
- **Diseases/conditions:** meningitis; cerebral malaria; glaucoma; cataract.
- **Old age:** As people grow old, they tend to become susceptible to some diseases such as cataract, long-sightedness.
- **Heredity:** Genetic/parental diseases, diabetes, allergy.

1.1.3. The characteristics of Visual Impairment

Generally, learners with visual difficulties are characterized by different behaviors including:

- Problems reading the notes from the chalkboard or scanning information quickly
- Distortion of perception: i.e. what is being seen and perceived
- Problems in maintaining and changing focus at near and far distances
- Visual discomfort and fatigue.

However, it is very important and beneficial to identify a child with Visual Impairment at early age for early intervention.

The following are characteristics of Visual Impairment during infancy and early childhood:

During infancy:

- Lack of eye contact
- No blinking to bright light
- Do not look at his/her hands
- Do not visually follow moving objects in front of his/her face
- Slow response to voiceless toys or parents' faces; respond only to sound
- No imitation of others' expressions and actions
- Do not actively reach out for his/her favourite toys
- Fear of gross motor activities, such as crawling

During early childhood:

- Often keep his/her head down; lack eye contact with others
- Limited facial expression and body language
- Tend to hold objects very close to the eyes when looking at them
- Abnormal responses to bright light (gazing at light excessively or trying to avoid it)
- Often bump into objects or fall over, and get confused with directions
- Search for his/her way using hands
- May press on eyeballs with fingers
- Jerky movements of the eyeballs



SELF-ASSESSMENT 1.1

1. What is Visual Impairment?
2. Explain 3 causes of Visual Impairment
3. Identify 5 characteristics of Visual Impairment

1.2. Classification and strategies of accommodating learners with Visual Impairment in an inclusive class



ACTIVITY 1.2

1. How could we categorise Visual Impairment?
2. Which strategies do you think we should use to effectively accommodate learners with visual disabilities in class?

1.2.1. Classification of Visual Impairment

Visual Impairment can be classified into three levels:

- a. *Mild Visual Impairment*:
 - Can read relatively larger characters
 - No difficulty in identifying shapes, colours and brightness contrasts
- b. *Moderate Visual Impairment*:
 - Can tell shapes and colours of objects and can distinguish between brightness and darkness
 - Can only read characters with larger size and broader strokes
- c. *Severe Visual Impairment*:
 - Can only distinguish more obvious changes in brightness and darkness
 - May not see anything (completely blind)

1.2.2. Strategies of accommodating learners with visual disabilities in class

Many learners are visually impaired, but are fortunate enough to have the impairment corrected by glasses and other optic aids. However, for some with severe difficulties that cannot be corrected, such learners can only learn with alternative and adapted assistance.

A learner with moderate visual difficulties can perform visual tasks almost like a sighted learner, with the use of special aids and lighting. A learner with severe visual difficulties may need extra time and energy to perform visual tasks, even with visual aids. A learner with a profound Visual Impairment will find it difficult to perform gross visual tasks, and detailed tasks virtually impossible. Below are some examples of strategies to address their learning needs:

- **Sitting arrangements:** For learners with some vision, it is important that they sit in a position in the classroom where they can see on the board as clearly as possible. It may also be important for them not to sit directly in very bright light (such as right next to a window), or in very dark places (such as corners furthest from the window).

However, it is essential to ask the learner where they feel most comfortable in the classroom, where they feel they can see the board and their books most clearly, and thus where they feel they will learn best. It is the teacher's job to facilitate learner with VI to move and sit in the 'best' location; but it is not necessarily always the teacher's job to decide, on their own, where that location should be.

- **Organizing the classroom:** When a learner with Visual Impairment starts in a new classroom, the teacher and/or other children should help to orient them to where the main facilities and obstacles are, and where to find the learning materials they will need on a daily basis (books, pens, etc). Teachers should ensure that they tell children about any changes to the layout of the classroom (e.g. desks or cupboards that have moved; or other new obstacles that have arrived). The teacher or other learners should guide children with Visual Impairment to learn these changes. Teachers and sighted learners should learn to avoid leaving doors and drawers ajar (leave open) or leaving bags on the floor in aisles between desks. They should take the habit of tucking their chairs under their tables/desks when not being used, to minimize the number of obstacles in the room.

The classroom instructions and regulations could be "Brailled", that is, Braille labels could be placed throughout the room, including in places where there are written signs, and on the various pieces of furniture. This will help children with Visual Impairment to navigate around the room and find key objects or equipment needed during lessons. It will help them practice reading Braille (if they are new to it), and give sighted children a chance to start learning Braille.

- **Effective communication**

Communication techniques include the following:

- Teachers should speak to the class when they enter and leave the room, so that learners with Visual Impairment know what is happening.
- Teachers should use auditory or tactile signals, and not just visual signals. For instance, if the teacher normally puts a finger on his or her lips to signal “please be quiet”, she could consider changing this signal to involve first a hand clap.

If a teacher or sighted learners wants to attract the attention of a learner with a Visual Impairment, they should say the learner’s name. If they want to end a conversation or move away from a group that is talking, they should tell the learner with Visual Impairment that they need to go, not simply walk away.

- The sighted learners in class should say their names before they start speaking (e.g. when giving an answer to a question asked by the teacher) so that children with Visual Impairment know who is speaking. This may be particularly important at the start of new school year, when children don’t know their classmates’ voices so well.
- Teachers and sighted children in the school/class should learn how to guide a child with a Visual Impairment. To be a guide they should first identify themselves and offer to guide the child. If the child agrees, the guide should offer their arm to the child’s hand. The guide needs to tell the child with Visual Impairment when there are steps up or down, whether a door is to their left or right, and warn them of possible hazards.
- Teachers and sighted learners could learn how to use the concept of a clock face to describe directions for children with Visual Impairment. For instance, “it’s at 2 o’clock” would mean the direction the child needs to move in is in front of them and slightly to the right. They should also give clear directional instructions, such as “straight ahead”, “forward” and “right”, and avoid saying, for instance “it is over there”. If there are any notices on the walls (e.g. notifying children about changes to the timetable, about a special event at the school, or about rewards for achievement or behavior) the teacher should ensure that these are read aloud when they are put on the wall.
- **Pairing children:** A sighted learner could volunteer to read out loud to a learner with Visual Impairment. This could help both of them: the learner with Visual Impairment is able to access the reading materials, and the sighted learner can revise the materials through reading it

again, which may be useful is he/she is experiencing some difficulties with learning the content. When pairing learners, it's important for teachers to remember that learners with Visual Impairment can and should help other learners, and not just be the recipients of help.



SELF-ASSESSMENT 1.2

1. Identify 3 categories of Visual Impairment
2. Explain 3 strategies of accommodating learners with Visual Impairment in class



SKILLS LAB

1. Visit one classroom in a nearby primary school, observe all learners during lesson time, identify those with Visual Impairment. Classify those learners into 3 categories of Visual Impairment. Then advise the teacher on teaching approaches or other reasonable accommodations he/ she should adopt in order to meet the learning needs of learners with Visual Impairment in the classroom.



END OF UNIT ASSESSMENT

1. Define Visual Impairment?
2. Give 3 causes of Visual Impairment?
3. Explain the three classification of Visual Impairment?
4. Give 3 characteristics of an infant with Visual Impairment?
5. How can you recognise that a child has Visual Impairment?
6. In the classroom, how can you identify a learner with Visual Impairment?
7. In your own words, explain how you can accommodate a learner with Visual Impairment in the classroom?

UNIT 2

LEARNERS WITH HEARING IMPAIRMENT

Key Unit Competence: Apply suitable teaching methods, techniques and strategies to address the needs of learners with hearing difficulties



INTRODUCTORY ACTIVITY



Umutesi is a 7 years old girl who has just started Primary 1. She has a hearing loss resulting from repeated and severe ear infections throughout her early childhood. Her hearing loss is considered hard-of-hearing because she has some residual hearing and uses hearing aids. Umutesi's language and speech skills are delayed because she could not hear adequately since early childhood. Umutesi is being assisted by an audiologist who ensures that her devices are in good working conditions, and she uses the devices in her schooling.

1. What was the cause of hearing loss in Umutesi's case?
2. Discuss challenges or barriers Umutesi may face in school?
3. What teachers can do to remove barriers Umutesi might face in her learning process.

2.1. Definition, cause, and characteristics of Hearing Impairment



ACTIVITY 2.1.

- How would you define Hearing Impairment?
- What could be the causes of Hearing Impairment?
- What could be the symptoms of a learner with Hearing Impairment?

2.1.1. Definition of hearing difficulties

Hearing Impairment signifies full or partial loss of the ability to detect or discriminate sounds due to an abnormality associated with the physiology, anatomy, or function of the ear. Hearing Impairment is an inability to hear well or not hearing at all.

According to WHO census, (20 March 2019) Around 466 million people worldwide have hearing loss and 34 million of these are children. It is estimated that by 2050 over 900 million people will have disabling hearing loss.

2.1.2. Causes of Hearing Impairment and deafness

The main causes of Hearing Impairment include:

- **Hereditary factors:** This is hearing loss or deafness that is inherited from parents or relatives
- **Prenatal factors:** An expectant mother can be exposed to many different kinds of infection during pregnancy, such as rubella and influenza. Some of these infections are more damaging to the developing embryo than others. One of the most serious infections is rubella. Other infections contracted by the mother such as syphilis, may also cause Hearing Impairment in the developing embryo. Certain drugs such as quinine taken during pregnancy may also cause Hearing Impairment in a child.
- **Peri-natal factors:** Hearing Impairment may occur just before, during or just after birth due to the lack of oxygen (anoxia).
- **Post-natal factors:** Infectious diseases such as meningitis, measles and mumps can lead to Hearing Impairment, this can be during childhood or later in life. Discharge from ears is mainly as a result of chronic ear infections which may lead to hearing loss. In certain cases, this condition can also lead to serious and life-threatening complications,

such as brain abscess and meningitis. Use of some drugs such as anti-malaria drugs and certain antibiotic can damage the inner ear. Injuries to the skull are particularly serious as they may rupture the ear drum, dislocate the ossicles or affect the inner ear. Other causes that may lead to Hearing Impairment are exposure to excessive noise, old age and presences of foreign bodies in the external auditory canal.

2.1.3. Characteristics of learners with Hearing Impairment

Learners with Hearing Impairment generally show some specific behavioural characteristics:

- Have difficult in hearing high pitched speech sounds such as: /s/, /f/, /z/, /t/, /k/, /tʃ/
- Have difficult in understanding directions
- Rely more on visual information processing
- Have difficult in group discussions
- Do not develop speech spontaneously
- May not participate in useful conversation with others
- Have inappropriate rhythm in speech and have poor articulation
- Have a feeling of inferiority and may withdraw from the hearing community if misunderstand
- May become aggressive or impulsive if not given appropriate support by the hearing
- Ask repetition of what has been said
- Cups the ear in the direction of sounds



SELF-ASSESSMENT 2.1

1. What is Hearing Impairment?
2. Give 5 characteristics of a learners with Hearing Impairment
3. Explain the causes of Hearing Impairment and deafness (in your own words)

2.2. Classification and strategies to teach learners with Hearing Impairment



ACTIVITY 2.2.

- What is the classification of Hearing Impairment?
- Explain the strategies of teaching learners with Hearing Impairment

2.2.1. Classification of Hearing Impairment

Hearing loss can be classified according to:

- Severity
- Age of onset
- Part of the ear affected

a. Classification according to severity:

Some learners may only have slight or severe hearing loss. There are five major categories of hearing loss:

1. **Learners with slight hearing loss:** These are learners who can follow normal conversation if there is no noise in the room but would need a preferential seating arrangement while facing the speaker. They may also have difficulty hearing faint or distant speech.
2. **Learners with mild hearing loss:** Learners in this category may understand a conversation only at a distance of about one meter when the room is very quiet. They may miss as much as 50% of class discussion if voices are faint and may exhibit limited vocabulary and speech anomaly. In some cases, a child with mild hearing loss may not be able to make certain speech sounds that are high pitched such as /s/ and /f/. Usually his/her main problem is that he/she mal-articulates or omits some sounds.
3. **Learners with moderate hearing loss:** These learners may have difficulties hearing in all situations and:
 - Can only follow loud conversation;
 - Are deficient in language use and comprehension;
 - Are likely to have defective speech
 - Have limited vocabulary
 - Need the use of hearing aid and in some cases, speech training

4. **Learners with severe hearing loss:** These learners may hear loud voices about 30 cm from ear. They may be able to identify environmental sounds and discriminate vowels but not all consonants.
5. **Learners with profound hearing loss:** These learners may hear some loud sounds but are aware of vibrations more than tonal pattern. They rely on vision rather than hearing as the primary avenue of communication. They need hearing aids and sign language.

b. Classification according to age of onset

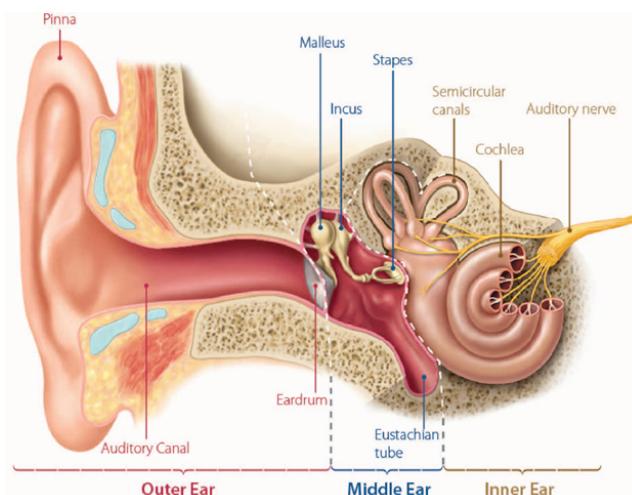
According to age of onset, Hearing Impairment is categorized into two: These are:

Pre-lingual deafness: This refers to Hearing Impairment occurring prior to the age of two or before speech development.

Post-lingual deafness: This refers to Hearing Impairment occurring at any age after speech has fully developed.

c. Classification according to the part of the ear affected

Before discussing this, we need to look at the anatomy of the ear. Functionally the ear is divided into three main parts. These are the outer ear, the middle and the inner ear as shown in figure below.



There are four types of hearing loss according to the part of the ear affected. These are:

- Conductive
- Sensory-neural
- Mixed
- Auditory Neuropathy Spectrum Disorder

- **Conductive hearing loss:** This is when the damage or infection is either in the outer or the middle parts of the ear. This may result in mild or moderate hearing loss. Those with this type of hearing loss have residual hearing left and can hear and understand spoken language with the help of suitable hearing aids.
- **Sensori-neural hearing loss:** This is when the damage is in the inner ear. This may result in severe or profound hearing loss little residual hearing left. Children with this type of hearing loss usually do not acquire and use spoken language.
- **Mixed hearing loss:** This refers to a combination of both conductive and sensori-neural hearing loss this means that both the outer middle ear and the inner ear are affected at the same time. It should be noted that learners with Hearing Impairment can either be ***hard of hearing*** or ***deaf***. ***Hard of hearing*** persons are able to use their hearing ability either with or without use of hearing aids. Speech and language skills are normally developed through the auditory channel. ***Deaf*** persons have a hearing loss that does not enable them to use hearing ability to understand speech even with the use of hearing aid. Such a learner uses vision as the primary modality for learning and communication.
- **Auditory Neuropathy Spectrum Disorder:** Hearing loss that occurs when sound enters the ear normally, but because of damage to the inner ear or the hearing nerve, sound isn't organized in a way that the brain can understand.

2.2.2. Strategies to teach learners with Hearing Impairment

- Organize the classroom so that all the children are sitting in a U shape. This way the children can see each other, which will make it easier for children with Hearing Impairment to use sign language, read lips and understand mimics, thereby making it possible to participate more actively in discussions and classroom activities.
- Spend some time giving face-to-face instruction, since group situations can be quite challenging for children with Hearing Impairment.
- Look at the child (with Hearing Impairment) while speaking to her/him.
- Speak slowly and clearly, but not too loud.
- Use short, simple, and clear sentences.
- Be consistent in the use of language.
- Use clear mimics and gestures.
- Ask the child (if s/he has an oral language) to repeat what s/he has understood.

- Write down key words from the information given during the class and give it to the child at the end of every day.
- Work together with an audiologist (if available) to teach and encourage the child to use her/his residual hearing to the maximum extent possible, even if the preferred means of communication is sign language.
- Reduce all unnecessary noise, as multiple sources of sound will make it more difficult for the child to use her/his residual hearing. This is also important if the child is using a hearing aid.
- If some of the classrooms in the school are noisier than others (e.g. noise from busy roads, airports or factories), the school should be flexible and move any classes with children with Hearing Impairment (as well as classes with children with Visual Impairment or other disabilities) to less noisy rooms.
- Be flexible with time, as most of the children with Hearing Impairment (both deaf and hard of hearing) will struggle to understand everything that goes on in the classroom (as a result of their hearing loss).
- Focus more on content than on grammar when assessing the writing of children who primarily use sign language for communication. Because the grammar of sign languages is very different from written languages
- Please take into consideration that:
- Facial hair (e.g. beards and moustaches) worn by male teachers may obscure leap reading and facial expressions.
- Face covering – veils covering eyes, eyebrows, nose, mouth and cheeks (worn by some teachers and fellow learners), may obscure leap reading and facial expressions.

The majority of children who are deaf (profound hearing loss) are born to hearing parents. The school should therefore attempt to provide instruction for parents on the implications of deafness within the family.

A learner who is hard of hearing may also need more time to learn than other learners, as s/he will not always be able to hear the teacher's voice and what other children talk about in the classroom. Therefore, much of the information given during the lessons will be lost.



SELF-ASSESSMENT 2.2

1. What is Hearing Impairment
2. Hearing Impairment can be classified according to 3 elements. What are these elements?
3. What are the four types of hearing loss according to the part of the ear affected?
4. What are the five major categories of hearing loss
5. Give 5 strategies to teach learners with Hearing Impairment



SKILLS LAB

Visit one classroom in a nearby primary school, observe all learners during lesson and break time. Identify those who might have Hearing Impairment. Based on 5 major categories of Hearing Impairment, assess these learners and classify them into 5 categories. Advise the teacher on teaching approaches or other reasonable accommodations to adopt in order to meet the learning needs of learners with Hearing Impairment in the classroom.



END OF UNIT ASSESSMENT

1. What is Hearing Impairment?
2. Give 5 characteristics of a learners with Hearing Impairment
3. Classify hearing loss according to severity, age of onset, and part of the ear affected
4. What are the five major categories of Hearing Impairment?

UNIT 3

LEARNERS WITH DEAF-BLINDNESS

Key Unit Competence: Explain the characteristics of learners with deaf-blind disability and use appropriate approaches to teach them.



INTRODUCTORY ACTIVITY

The case of Kawera

Kawera is 8 years old girl who is studying in primary 2. Since she was born, she had hearing difficulties and total blindness. It is suspected that her problem is from her grandfather who had the same difficulties like Kawera but also her mother is a well-known alcohol abuser. She faces many difficulties in her life. She cannot communicate, move around easily and these affect the way she interact with the community. Kawera has recently been able to join the school. However, due to her condition the school recruited the new teacher who will assist Kawera in her school activities. The school has also engaged health practitioners who come once in a while to check on Kawera's life. They work to prevent the severity of her impairment and provide the intervention needed. Kawera is now progressing well in her education.

Tasks:

1. What was the cause of deaf-blind in Kawera's case?
2. What are challenges Kawera face in school?
3. What did school do to remove some barriers for Kawera?

3.1. Definition and causes of deaf blind disability



ACTIVITY 3.1.

1. How would you define the term "deaf-blindness" ?
2. What do you think could cause deaf blindness ?

Deaf-blindness is a combination of sight and Hearing Impairment that affects how you communicate, access information and get around. The deafblind does not necessarily mean to be totally deaf or totally blind.



Most of children who are deaf-blind also have additional physical, medical and/or cognitive problems. People are considered to be deaf-blind when the combination of their hearing and vision loss causes such severe communication, other developmental and educational needs that they require significant and unique adaptations in their educational programs.

Learner with deaf blind disability being thought using tactile method

➤ Causes of deaf blind disability

There are four primary causes of vision and hearing loss:

- ❖ **Genetic factors:** (Hereditary/Chromosomal Disorders): are inherited from parents, for example, Usher syndrome (is a condition characterized by partial or total hearing loss and vision that worsen over time) is caused by eye disease called retinitis pigmentosa, this syndrome is present from birth with effects appearing gradually over the years.
- ❖ **Prenatal factors:** Those are some complications before birth. It also includes chronic maternal illnesses, viral/bacterial diseases, or harmful chemicals (Teratogens).
- ❖ **Complications at birth:** There are many congenital complications that may be one of causes of disability.

- ❖ ***Postnatal injuries and/or illnesses:*** Those are some factors of after birth that may contribute to become a deafblind including age related illnesses for hearing and vision, diabetic retinopathy which is complications of diabetes where the cells lining the back of eye are damaged, brain damage due to the wide range of conditions.



SELF-ASSESSMENT 3.1

1. Briefly, discuss the meaning of deafblind?
2. What are the four factors of deafblind disability?
3. Explain the following factors:
 - Postnatal factors;
 - Genetic factor

3.2. Characteristics and Types of deafblind disability



ACTIVITY 3.2.

1. If deafblindness affect persons of different age, how can you describe a deafblindness?
2. If you have seen a person with deafblindness in your environment, what are challenges do you think they face in daily life activity?

Deaf blindness can affect people of all ages (children, adults and elders). For adults, it develops gradually and the person themselves may not realise their vision and/or hearing is getting worse.

➤ Characteristics of deafblind disability may include:

- Needing to turn up the volume on the television or radio
- Difficulty following a conversation
- Not hearing noises such as a knock at the door
- Asking others to speak loudly, slowly and more clearly
- Needing to hold books or newspapers very close, or sitting close to the television
- Difficulty moving around unfamiliar places.

➤ Types of deafblind disability

People with deaf-blindness may fall into three groups:

- People with residual sight but who are completely deaf
- People with residual hearing who are completely blind
- People without residual sight or hearing.

Residual sight or hearing is often not sufficient for a person to be totally dependent on it. Deaf-blind learners without any residual sight or hearing need more support than those with residual sight or hearing.

It is not easy for a sighted and hearing person to understand what it is like to be deaf-blind.

Key difficulties experienced by deaf-blind people include:

- ❖ **Finding out information:** Deafblind have challenges of finding out information that help them participate in the daily life of their community, such as the meaning behind facial expressions or the shape of objects that cannot be reached, or the sound of an approaching vehicle.
- ❖ **Communicating with others:** Deaf-blind people are unlikely to meet many people who can communicate with them straight away. They use one or more ways of communications including sign language etc.
- ❖ **Movement:** Deafblind people can neither see nor hear. Therefore most of the time they do not want to move around avoiding obstacles, planning routes or climbing stairs.



SELF-ASSESSMENT 3.2

1. What are three types of deafblind people?
2. How does deafblind disability develop in adult people?
3. What characterize a deafblind person?

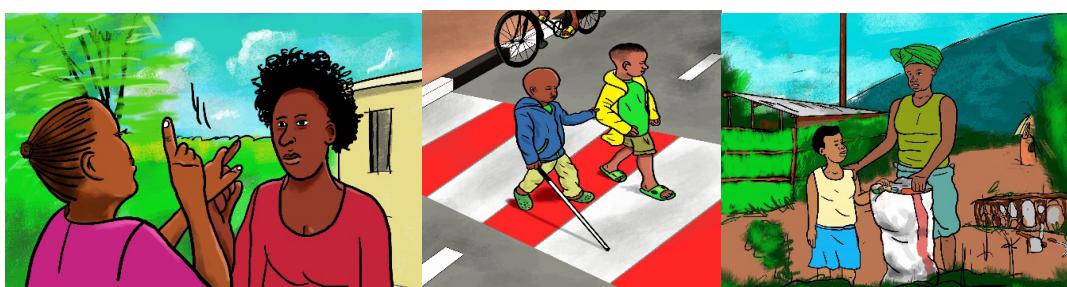
3.3. Teaching approaches for learners with deafblind disability



ACTIVITY 3.3.

1. How do you think we should help persons with deaf blindness?

Most deafblind people still have some hearing and/or vision at different level of disabilities. The level of care and support they need will depend on severity of their hearing and vision problems. Learners, who are deafblind since their birth, will need the early childhood interventions. Early intervention should be to stimulate the awareness of their immediate environment and to create interest in the external world. They need to be deliberately encouraged and introduced into the world through one-on-one communicative interaction. Sign language is the most obvious choice of communicative skills that can aid the communication and can be very effective in developmentally capable individuals with dual sensory impairment. However, learners who are deafblind can only be included in regular classrooms if their cases are either mild or moderate, the severe deafblind are placed in special places and supported with the help of multi-disciplinary team.



➤ Teaching approaches for deafblind learners

Here are some strategies that maybe used when teaching deafblind learners

1. **Making contact:** Cued communication can be used to provide meaningful information through a combination of approaches, tangible object cues, touch cues and tactile signs/gestures.
2. **Build relationship/ provide feedback:** The partner should be consistent in the way they approach the learner while making a physical contact.
3. **Interrupted routines:** It is one strategy where communication partner interrupts the learners' established routines to see/observe how she /he responds. The partner may use this interruption to initiate a conversation or to teach a sign related to the interrupted activity.

4. **Choice making:** This is to help the learner to use cognitive skills, communication, motor skills and social skills. This help him/her to avoid imposed decisions to them for others people.
5. **Establishing routines:** Use a simple and communication techniques especially in teaching daily living activities to establish a predictable routine from which further communication is developed.
6. **Acknowledging communications efforts:** The learner's effort to initiate a conversation must be encouraged.
7. **Using tactile cues:** Refers to three dimensions' tangibles objects that can be manipulated easily and possess tangible qualities such as shape, textile, consistency. These are real objects, miniatures objects, or partial object that are fixed on the cards.



The individual abilities and needs of deaf blind children must be assessed in order to make an individual plan. The individual plan also should focus on to: preserve and maximise any remaining sensory functions the person has, teach alternative communication methods such as tangible object cues, touch cues and

tactile signs/gestures, help the person retain as much independence as possible, for example training to use a long cane or guide dog or through the provision of a communicator guide, for young children, ensure their educational needs are met.

➤ There are different ways of communication for deafblind such as:

- ❖ **Clear speech:** Speaking clearly is one of the most effective and common ways of communicating with deafblind people who have some remaining vision and hearing
- ❖ **Deafblind manual alphabet:** A tactile form of communication where words are spelt into the deafblind person's hand using set positions and movements.
- ❖ **Block alphabet:** A simple tactile form of communication where a word is spelt out in capital letters that are drawn into the deafblind person's palm
- ❖ **Hands-on signing:** An adapted version of British Sign Language (BSL) where the deafblind person feels what's being signed by placing their hands-on top of the signer's hand

- ❖ **Visual frame signing:** An adapted version of BSL where the signs are adapted to be signed in a smaller space to match the position and size of a deafblind person's remaining sight
- ❖ **Braille:** A system that uses a series of raised dots to represent letters or groups of letters.
- ❖ **Moon:** Similar to Braille, but uses raised, adapted capital letters that are simpler to feel.



SELF-ASSESSMENT 3.3

1. Explain how you can communicate with a learner with deaf blindness using the following methods?
 - a. Braille
 - b. Block alphabet
2. What is the difficult of deafblind in every day ?



SKILLS LAB

1. Visit a special school and identify a child suspected to have deafblind disability. Spend around three hours with the child. Write down all the characteristics of the child with deafblind disability and suggest strategies you could use to help that child improve his/her studies.



END OF UNIT ASSESSMENT

1. Explain the deafbliness ?
2. Explain the different types of deafblindness
3. Discuss the difficulties of deafblind people in everyday life.
4. Identify ways of communication with deafblind learners

UNIT 4

LEARNERS WITH PHYSICAL DISABILITIES AND OTHER HEALTH IMPAIEMENTS

Key Unit Competence: Apply suitable teaching methods, techniques and strategies to address the needs of learners with Physical Disabilities and Other Health Impairments



INTRODUCTORY ACTIVITY

Shumbusho is an amazing young boy who has exceeded most of the expectations of those who made assumptions based on his "labels" and therefore had lowered expectation for him. Fortunately, he did no live down to their expectations. Shumbusho has Duchenne Muscular Dystrophy, a form of Muscular Dystrophy which is genetically inherited disorders characterized by progressive muscle weakness and degeneration of skeletal muscles which control movement. At age two, Shumbusho was still unable to walk. At age six, Shumbusho had difficulty rising from a sitting or lying position. At primary school, he could not run the same distance as his peers, he would fall frequently and had unusual fatigue. By age 12, Shumbusho was using a wheelchair because his muscles in the shoulders, arms, back and legs were very weak. Shumbusho was a very bright learner despite his physical conditions. He has been blessed by many wonderful headteachers, teachers, aids and therapists who gave so much of themselves for his benefits. I hope that they will someday realize the impact that each one of them has had, individually and collectively on Shumbusho and through him on the community as a whole. Because of muscles weakness, Shumbusho had to be given an extra time to complete his assignments and homework. The school infrastructures were designed to facilitate Shumbusho's movement. The school sometimes invite a physiotherapy who worked to help Shumbusho with his muscles strengths. Shumbusho had to be given adapted activities in Physical Education and Sport and in mathematics. Teachers were always happy to provide remedial teaching any time Shumbusho would miss the class. Due to the support he received Shumbusho passed the national exams successfully and was admitted to the best secondary school in Rwanda. Shumbusho is an inspiration, and a wonderful example of what can be a child with disabilities if provided with appropriate support and services.

1. Discuss what characterized Shumbusho as a young boy who wanted to excel academically?
2. Many people came in to help Shumbusho reach his potentials, who were these people?

4.1. Definition of Physical Disabilities and other Health Impairments



ACTIVITY 4.1

1. You have probably met persons with Physical Disabilities. What do you understand by Physical Disabilities?
2. You certainly know people who have chronic Health Impairments. How would you explain the term "Health Impairment"?

4.1.1. *Definition of Physical Disability*

A Physical Disability is the long-term loss or impairment of part of the body's physical function. It can involve difficulties with walking and mobility, sitting and standing, use of your hands and arms, sight, hearing, speech, breathing, bladder control, muscle control, sleeping, fits and seizures or chronic tiredness.

4.1.2. *Definition of Health Impairments*

Health Impairment means having limited strength, vitality or alertness including a heightened alertness to environmental stimulus, that results in limited alertness with respect to the education environment that is due to chronic or acute health problems such as asthma, Epilepsy etc, and that adversely affects a child's educational performance.



SELF-ASSESSMENT 4.1

1. Physical Disability can involve difficulties with many aspects of life. What do you think are areas that are affected by the Physical Disability?
2. What Health Impairment means to you?

4.2. Categories of Physical Disability and Health Impairment



ACTIVITY 4.2

1. Discuss different physical and health problems you may have noticed among persons in your community?

Physical Disability and Health Impairment can be categories into three broad categories:

1. Musculo skeletal or Orthopaedic impairment
2. Neuro Musculo Disability
3. Chronic Health Impairment

1. Musculo skeletal impairment or orthopaedic impairment

It is defined as the inability to carry out distinctive activities associated with movements of the body parts due to muscular or bony deformities, diseases or degeneration. The disabilities grouped under musculo skeletal disability are:

- Loss or Deformity of Limbs or amputation
- Osteogenesis Imperfecta or brittle bones
- Muscular Dystrophy

2. Neuro Musculo Disability

It is defined as the inability to perform controlled movements of affected body parts due to diseases, degeneration or disorder of the nervous system. The categories are:

- Cerebral Palsy
- Spina Bifida
- Poliomyelitis
- Multiple Sclerosis
- Poliomyelitis

3. Chronic Health Impairment

Chronic Health Impairments limit strength, vitality or alertness and may adversely affect the learner' educational development. Learners with chronic Health Impairment are extremely limited in their activities and require intensive medical and educational help. The side effects of medications can have a significant impact on memory, attention, strength, endurance and energy levels.

Some of the chronic health problems include:

- Asthma
- Cancer
- HIV and AIDS
- Heart condition
- Rheumatic fever
- Tuberculosis
- Leukemia



SELF-ASSESSMENT 4.2

1. What is the difference between Musculo skeletal impairment and Neuro Musculo Disability? Give three example of each category
2. What do you understand by Chronic Health Impairment? give three example of Health problem.
3. What Health Impairment means to you?

4.3. Causes of Physical Disability and other Health Impairment



ACTIVITY 4.3

1. Discuss different physical and health problems you may have noticed among persons in your community?

The etiology or cause of physical and health disabilities varies greatly according to specific diseases or disorder. Some of the most common etiologies resulting in physical and health disabilities are genetic and chromosomal defects, teratogenic causes, prematurity and complications of pregnancy and acquired causes. On the other hand, the exact cause of some physical and health disabilities are unknown.

4.3.1. Chromosomal and Genetic causes

Among the most common causes of physical and health disabilities are hereditary conditions resulting from defects in one or both parent's chromosomes or genes. Several genetic defects are believed to contribute to a range of physical and health disabilities such as muscular dystrophy.

4.3.2. Teratogenic causes

Many physical and health disabilities are caused by teratogenic agents that affect the developing fetus. Teratogens are outside causes, such as infections, drugs, chemicals or environmental agents, that can produce fetal abnormalities. The fetus is also at risk of developing physical and health disabilities when exposed to certain drugs, chemicals or environmental agents. Maternal abuse of alcohol, for example, has been linked to a range of physical, cognitive, and behavioral abnormalities that can result in lifelong damage. Serious fetal abnormalities can also occur as a result of prescription medications taken for maternal illness or disease (for example, certain antibiotics and seizure medications).

4.3.3. Prematurity and complications of pregnancy

Infants are usually born at approximately 40 weeks of gestation. An infant born before 37 weeks is considered premature. Infants who are premature and born with very low birth weights (less than 1.5 Kg) are at risk of having disabilities. The infant can develop neurological problems resulting in cerebral palsy, epilepsy etc.

In some instances, babies that are born on time and with average weight encounter complications during the perinatal period. The most common cause of brain injury during the perinatal period is **asphyxia** – A decrease of oxygen in the blood. Among infants who survive an episode of asphyxia, several disabilities may occur such as cerebral palsy, epilepsy etc.

4.3.4. Acquired causes

Many physical and health disabilities are acquired after birth by infants, children and adults. These acquired causes include trauma, environment toxins and disease. For examples falls, accident are causes of amputation and other traumatic brain injury.



SELF-ASSESSMENT 4.3

1. With clear examples, explain how teratogenic agents can cause physical and health disability?
2. What is asphyxia and how it is a leading cause of Physical Disability?

4.4. Characteristics of Physical Disability and other Health Impairment



ACTIVITY 4.4

1. What are indicators of a person with amputation and poliomyelitis?

The specific characteristics of an individual who has a physical or health disability will depend on the specific disease, its severity, and individual factors. Two individuals with identical diagnoses may be quite different in terms of their capabilities. Also, it is important to remember that students who have severe physical disabilities (even individuals who are unable to walk, talk or

feed themselves) may have normal or gifted intelligence. No one should judge a person's intellectual ability based on physical appearance.

Let us discuss however on characteristics of the most commonly found Physical Disability in the school age population.

4.4.1 Learners with amputation

An amputation is the removal of a body extremity, most often referring to the loss of an arm, leg, fingers, or toe. The removal is often done through surgery in response to a trauma, disease or infection. In addition to removing diseased tissues, the amputation of limb may also relieve pain. A congenital amputation occurs at birth and is the term used when someone is born without a limb.



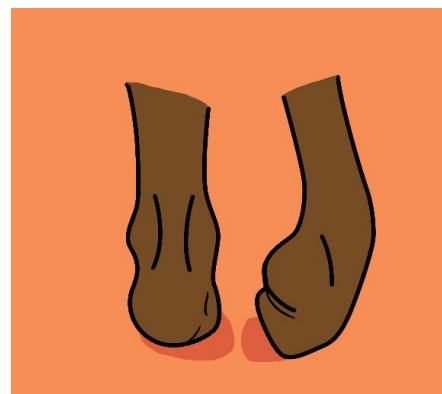
Students with amputation

4.4.2 Learners with Muscular Dystrophy

Muscular Dystrophy is a genetic(inherited) condition that gradually causes the muscles to weaken. It often affects a particular group of muscles, before moving on to the other muscles. If muscular dystrophy begins to affect the heart or the muscles used for breathing, it becomes life- threatening.

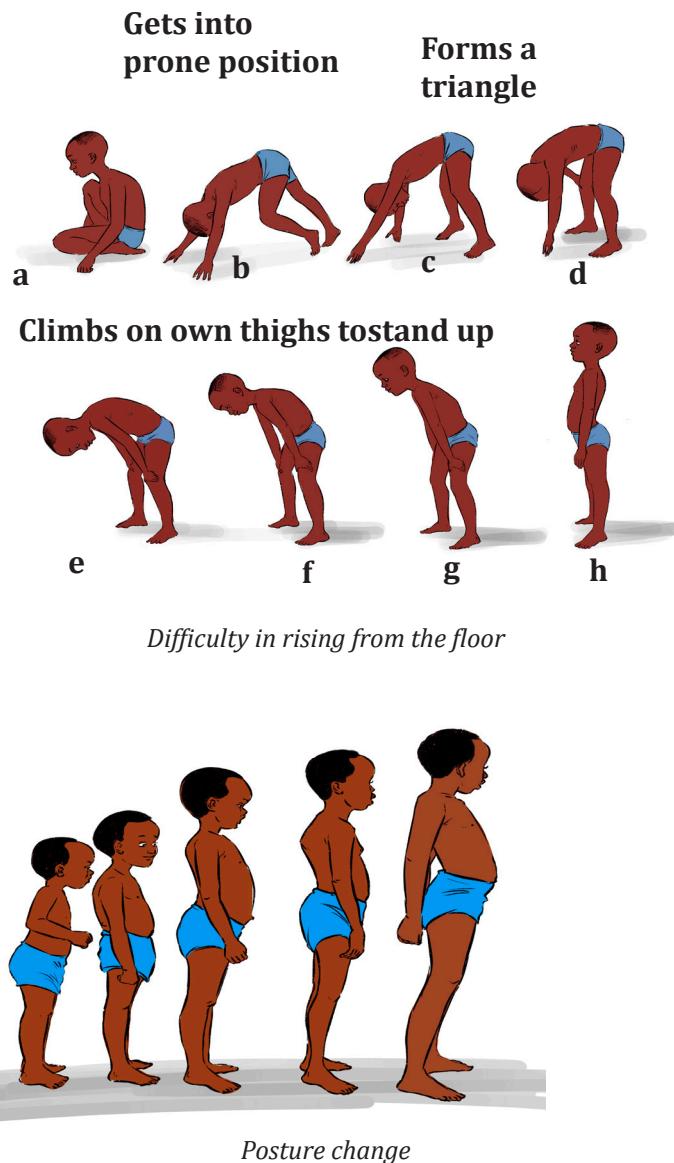
A child with muscular Dystrophy may display the following observable characteristics:

- Tendency to tire quickly
- Postural changes due to progressive muscle weakness
- Waddling gait with legs far apart
- Walking on tip toes
- Tendency to lose fine manual dexterity



Equinovarus deformity

- Trouble walking and maintaining balance
- Poor posture with a protruding abdomen and a sway back
- Equinovarus deformity of the feet
- Increasing difficulty in rising from the floor
- Lack of motivation because of limitation



4.4.3. Learners with Cerebral Palsy

Cerebral means “concerning the brain” and palsy means “paralyses or the inability to move. Therefore, cerebral palsy is a disorder of the brain that occurs as a result of brain damage or lack of development in the part of the brain controlling movement and posture.

The following are key signs that you may notice in children with Cerebral Palsy:

- Abnormal perception and sensation
- Delayed or lack of speech control
- Different walking patterns
- Difficulty with gross and fine motor skills
- Involuntary movement and lack of coordination



Learners with Cerebral Palsy

- Lack of muscle control, muscle tightness or spasm
- Poor posture and spastic movements

4.4.4. Learners with Epilepsy

Epilepsy is currently defined as a tendency to have recurrent seizures (sometimes called fits). A seizure is caused by a sudden burst of excess electrical activity in the brain, causing a temporary disruption in the normal message passing between brain cells. The disruption results in the brain's message becoming halted or mixed up.

Learners who are epileptic display the following behaviours during a seizure attack:

- Confusion and difficulty walking
- Loss of consciousness
- Convulsion
- Drooling
- Eyelid fluttering and rolling up

- Falling down, staring and stiffening

After the convulsions, you may observe the following:

- Difficulty talking
- Sleeping
- Exhaustion
- Thirst
- Weakness
- Urge to urinate/ defecate

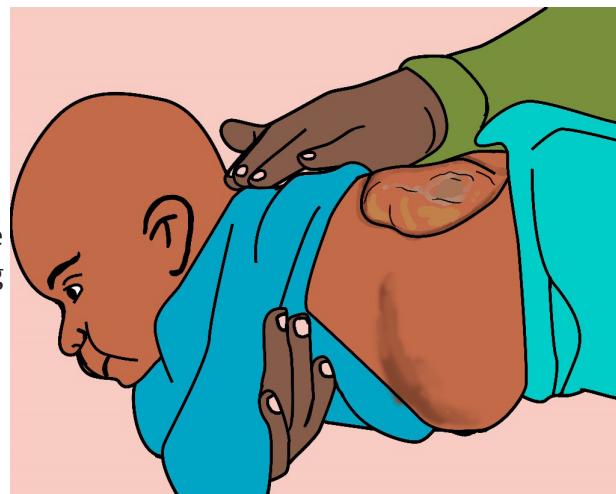


A girl after convulsions

4.4.5. Learners with Spina Bifida

Spina bifida is a birth defect that involves the incomplete development of the spinal cord or its coverings. The term Spina bifida comes from Latin and literally means split or open spine. Spina bifida occurs at the end of the first month of pregnancy when the two sides of the embryo's spine fail to join together, leaving an open area. In some cases, the spinal cord or other membranes may push through this opening in the back. The condition is usually detected before a baby is born and treated right away. The symptoms of spina bifida vary from person to person, depending on the type and level of involvement. However, learners with Spina Bifida may have the following characteristics:

- Closed neural tube defects
- Have problems with bowel and bladder control
- Fluid-filled sac visible on the back protruding from the spinal canal
- Spinal cord tissue is usually exposed
- Muscle weakness



Fluid-filled sac on the bac

- Paralysis
- Incontinence
- Poor short term memory
- Easily distracted
- Poor attention

4.4.6. Learners with Poliomyelitis

Poliomyelitis (Polio) is a highly infectious viral disease, which mainly affects young children. The virus is transmitted through contaminated food and water, and multiplies in the intestine from where it can invade the nervous system. Many infected people have no symptoms, but do excrete the virus in their faeces, hence transmitting infection to others.

Characteristics of polio include:

- Degeneration of muscles and bones
- Permanent paralysis
- Stunted growth of the affected limb



Learners with polio

4.4.7. Learners with Asthma

Asthma is the most common pulmonary disease of childhood and is on the increase. Children who have asthma breathe normally until they come in contact with a substance or situation that triggers an asthma attack such as pollen, air pollution, a respiratory infection or exercise. When an asthma attack is triggered, the learner has the following characteristics:

- Wheezing
- Frequent coughing
- Shortness of breath
- Labored breathing

- Chest tightness, pain or pressure
- Feeling very tired or weak after exercising
- Trouble sleeping

4.4.8. Learners with infectious diseases

Several infectious diseases fall under the heading of other health impairments. Some infectious diseases are readily transmittable(such as tuberculosis), others may pose no threat in the school environment(such as AIDS).

Learners with HIV and AIDS: A great number of children around the world are infected by the HIV every year. UNICEF, (2005) reported that at the end of 2017, about 2.6 million children lived with HIV in the world. AIDS stands for Acquired Immunodeficiency Syndrome. It is a disease that prevent the body from fighting infections. The Human Immunodeficiency Virus, which is known as HIV, infects and damages parts of the body's defenses against infections. HIV can be transmitted through direct contact with blood or other body fluids. Children commonly contract HIV during fetal development in the mother's uterus, at the time of birth, or during breastfeeding. Not all infant born to HIV positive mothers will have the HIV infection. However, the most common way children contract HIV is through mother- to baby transmission. Not all children with HIV will have symptoms, and those that do won't have exactly the same ones. Symptoms can vary by age. Some of the more common are:

- Being sick often with childhood illnesses such as an ear infection, a cold, an upset stomach, or diarrhea
- Failure to reach the developmental milestones as the normal children



SELF-ASSESSMENT 4.4

1. You are asked to assist the group assessing children with disabilities. What would be the signs that would point to the fact that a child has:
 - a. Muscular Dystrophy
 - b. Cerebral Palsy
 - c. Poliomyelitis

4.5. Teaching and learning approaches for learners with Physical Disabilities and other Health Impairements



ACTIVITY 4.5

1. How can you help a child with Cerebral Palsy?
2. Environmental aspect is very important for learners with Physical Disabilities, how would ensure that environment is conducive for learners with PD to learn effectively?

There are many teaching strategies you can use to ensure effective and productive learning environments and experiences for all students, including those with disabilities. Accessible Education is the process of designing courses and developing a teaching style to meet the needs of people who have a variety of backgrounds, abilities and learning styles. Just as there is no single way to teach, people learn in a variety of ways; using different instructional methods will help meet the needs of the greatest number of learners.

Meeting the educational needs of students with Physical Disability and other Health Impairment requires several modifications or adaptations. These will be discussed under the five main headings:

❖ Attitude

One of the first considerations in the effective teaching of individuals with physical difficulties is a positive attitude towards the learner's potentials and limitations, understanding of his/her difficulties and the degree of educational limitation it causes. The following methods will help teachers to address the educational needs of learners with Physical Disabilities and other Health Impairments:

- ✓ The teacher sets up a buddy system in class so that other learners can assist the child with physical or Health Impairments
- ✓ Speak directly to the person, not to an accompanying support person
- ✓ If you are not sure what to do, ask, “Can I help?”
- ✓ Encourage students to tell you about any accessibility concerns
- ✓ Incorporate into lessons/ and or wall hanging, examples of role models who have Physical Disability
- ✓ If the learner has a seizure attack, ensure the following:
 - Remain calm to avoid emotional reactions from the learners

- Never try to restrain the learner because nothing can be done to stop a seizure once it has begun
- Do not interfere with the movement in any way
- Talk to other teachers and learners to assure them that the condition is not contagious
- Move the learner into horizontal position. Loosen his/ her collar, tilt his/ her head sideways for release of saliva and place something soft under the head
- After the learner has get full consciousness, let him/ her rest

❖ Environmental arrangement

- ✓ Construction of ramps to all areas to enhance accessibility to all facilities
- ✓ Widening of the doors to enable movement of children on wheelchairs and those using crutches
- ✓ Avoid overcrowding the room so that there is ease in movement around.
- ✓ Ensure the door handles are easy to manage and are low
- ✓ Ensure the chairs, tables, beds and toilets are adapted to the learners' heights
- ✓ Clear the area around the learner so that no injury from hard objects occurs

❖ Participation

- ✓ Be aware that students with upper-body weakness or paralysis may be unable to raise their hand. Make eye contact to include the student in classroom discussions
- ✓ Try to be considerate if the student with a Physical Disability is coming from a long distance place; it may take the student longer to reach the school/ classroom
- ✓ Have students with communication difficulties (as is the case with cerebral palsy) use an alternative way of presentation in place of oral reporting
- ✓ If writing is difficult, let the learner use a tape recorder, where one is available or get a note taker
- ✓ If a visit or trip is planned to somewhere outside the school, plan well in advance to ensure that accessibility challenges on the journey and at the destination can be tackled.
- ✓ Plan activities at accessible locations so that all students can participate or, as a last resort, substitute an alternative activity with the same learning outcomes
- ✓ Consider alternative activities/exercises that can be used with less difficulty for the learner, but has the same or similar learning objectives
- ✓ Arrange for syllabus coverage for learners with Health Impairments since they may miss class when their conditions are exacerbated.
- ✓ Use appropriate learning, teaching aids and adapted physical education and sport equipment

- ✓ Refers the child (especially those with CP) for appropriate professional support like: Speech therapist, physiotherapist, occupational therapists, guidance and counselling specialist.

- ❖ **Assistive devices and technology**

- ✓ Provide assistive and compensatory devices such as wheelchairs, braces, calipers, special boots depending on the challenges to enable the child undertake school tasks
- ✓ Consider an assistive device as an extension of the person's personal space
- ✓ Encourage learners who use crutches or other assistive devices to keep them within easy reach. Make a suitable space available in the classroom near the learners

- ❖ **Assignment and tests**

- ✓ Allow scheduled breaks during lectures, tests and exams
- ✓ Allow more time for the learner to finish his/her work.
- ✓ Provide different accommodations during exams. For example, provide separate venue, provide extend time for learners with Cerebral Palsy or Muscular Dystrophy, provide a scribe to those who are unable to write their answers.
- ✓ If appropriate, let the learner use computers during the exam (when the learner has been using it in the instruction)
- ✓ Where appropriate, give completely oral tests or completely written tests, whichever suits the learner's needs
- ✓ Adapt some questions in exam without lowering the learning objectives. For example, the teacher may ask a question: Which is the capital of Rwanda? For a learner with severe cerebral palsy who is unable to talk or has difficulty in writing, the teacher may reformulate the question and ask: The capital of Rwanda is: a) Bujumbura, b) Kigali, c) Kampala



SELF-ASSESSMENT 4.5

1. Briefly explain which teaching strategies you would use to help learners with Physical Disabilities.



SKILLS LAB

1. Visit a school that accommodate learners with Physical Disabilities & OHI. Spend some hours in school. With reference to the following points, prepare three pages' document to advise teachers and school in general how to effectively include learners with Physical Disabilities:
 - Categories of learners with Physical Disabilities
 - School environment (open space, facilities, playground)
 - Classroom environment (seating arrangement, teaching methodologies)
 - Attitude of teachers, peers and Learners with PD & OHI themselves



END OF UNIT ASSESSMENT

1. What are the strategies needed to be put in place to support learners with Physical and Health Impairments in school?
2. What would you do if a learner has a seizure attack in your class?
3. What are the common causes of Physical Disability?
4. Discuss how Asthma and HIV and AIDS may impact on learners learning and development?
5. How may you identify children with Muscular Dystrophy in your school?

UNIT 5

LEARNERS WITH SPECIFIC LEARNING DIFFICULTIES

Key Unit Competence: Describe the characteristics of learners with Learning Difficulties and use appropriate methods to teach them



INTRODUCTORY ACTIVITY

Uwera had a very successful nursery and primary school experience until primary three. In primary three things got a bit more difficult. Lack of organization and her lack of ability to do written work began to destroy her confidence and academic success. She was always the last in the class. She had difficulties in mathematics and reading. She was unable to read a text that a learner in primary two could read so easily. She was afraid of mathematics and could hardly do a simple mathematical exercise. She never brought assignments home, frequently did the wrong homework if she did it at all and forgot to turn in completed homework. Her text books and note books were all in a mess and her desk was always a muddle. Uwera was however a sociable girl, beautiful and had very good computer skills, was good in music and gymnastics. Her class teacher decided to call her parents over her poor academic performance. Her parents revealed that Uwera was born prematurely and her mother had complicated delivery. The mother also revealed that Uwera experienced anoxia immediately after birth. After her parents visit to the school, the teacher decided to change the way he was teaching Uwera. He would allow Uwera to use the computer in all academic assignments since she was good at using a computer. The teacher would give Uwera remedial teaching after class to make sure she understood the lesson. The gymnast teacher decided to nurture her talents. Since Uwera was good at singing the teacher used songs to teach Uwera some mathematical and reading concepts. Uwera recently represented Rwanda in singing and dancing competition that took place in the USA. She represented Rwanda in many other competitions as a gymnast and has received global recognition. Uwera is an inspiration to many, an example of what a learner can be and do if teachers are ready to support him/her. May God bless good teachers.

1. Uwera experienced difficulties in some academic areas. In which areas Uwera had problems?
2. Explain what the teacher did to help Uwera popular/star
3. What were the causes of Uwera's shortcoming in academics?

5.1. Definition of Specific Learning Disabilities



ACTIVITY 5.1

1. You may have noticed that a learner may have difficulties in reading, spelling but very bright in mathematics. How would you explain this? What type of special educational needs does the learner have?
2. How do we call learners who struggle academically, yet are very smart?

Learners with Learning Disabilities have always been in our classrooms, but teachers have often failed to identify these pupils and recognise their special needs. These learners have been called names including "slow learners, hard to teach, daydreamers, lazy, abaswa" etc.

Learning disabilities are neurologically-based processing problems. These processing problems can interfere with learning basic skills such as reading, writing and/or math. They can also interfere with higher level skills such as organization, time planning, abstract reasoning, long or short-term memory and attention. It is important to realize that learning disabilities can affect an individual's life beyond academics and can impact relationships with family, friends and at the workplace.

The Individuals with Disabilities Education Act (IDEA) defines a specific learning disability as "a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, that may manifest itself in the imperfect ability to listen, think, speak, read, write, spell, or to do mathematical calculations."

However, as IDEA's definition notes, "Specific Learning Disability does not include learning problems that are primarily the result of visual, hearing, or motor disabilities; of intellectual disability; of emotional disturbance; or of environmental, cultural, or economic disadvantage." This clause helps to distinguish learning disabilities from the other disability categories.



SELF-ASSESSMENT 5.1

1. Explain the term "Specific Learning Disability"
2. Learning Disabilities are neurologically-based processing problems. These processing problems can interfere with learning basic skills. Which basic skills may be affected by this condition?

5.2. Types of Learning Disabilities



ACTIVITY 5.2

- With reference to the definition of learning disabilities, which are the areas that a learner with learning disabilities may struggle with?

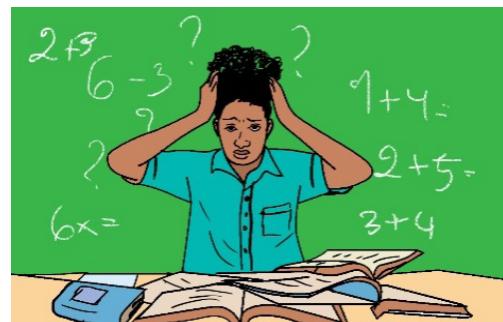
“Learning Disabilities” is an “umbrella” term describing a number of other specific learning disabilities. These specific learning disabilities include:

Dyslexia

A specific learning disability that affects reading and related language-based processing skills. The severity can differ in each individual but can affect reading fluency, decoding, reading comprehension, recall, writing, spelling, and sometimes speech and can exist along with other related disorders. Dyslexia is sometimes referred to as a Language-Based Learning Disability.

Dyscalculia

A specific learning disability that affects a person’s ability to understand numbers and learn math facts. Individuals with this type of LD may also have poor comprehension of math symbols, may struggle with memorizing and organizing numbers, have difficulty telling time, or have trouble with counting.



Dyspraxia

A disorder that is characterized by difficulty in muscle control, which causes movement problems and coordination, language and speech, and can affect learning. Although not a learning disability, dyspraxia often exists along with dyslexia, dyscalculia or ADHD.

Dysgraphia

A specific learning disability that affects a person’s handwriting ability and fine motor skills. Problems may include illegible handwriting, inconsistent spacing, poor spatial planning on paper, poor spelling, and difficulty composing writing as well as thinking and writing at the same time.



Dysphasia, or aphasia

This is a type of speech disorder in which one has an impairment in the ability to express speech, writing, signs, or has impairment in comprehension of spoken word or language.



SELF-ASSESSMENT 5.2

1. Explain the various types of learning disabilities.
2. With an example, explain what dyslexia means?

5.3. Causes of Learning Disabilities



ACTIVITY 5.3

1. You now know what learning disabilities mean. What do you think are the causes of learning disabilities?

Despite intense research activity over the year, pinpointing the precise cause of learning disabilities has remained an elusive goal. In the vast majority of instances, the **cause of a person's learning disability remains unknown**. Just as there are many different types of learning disabilities, there appears to be multiple etiological possibilities. Investigators suggest four basic categories to explain the etiology of learning disabilities: Acquired trauma, genetic/hereditary influences, biochemical abnormalities and environmental possibilities.

5.3.1. Acquired trauma

The medical literature uses the term acquired trauma when describing injury or damage to the Central Nervous System(CNS) that originates from outside the person and results in learning disorders. Depending on when the damage occurs the trauma is identified as prenatal (before birth), perinatal (during birth) or postnatal (after birth). These conditions have been linked to learning problems in children. One example of an acquired trauma that may manifest itself pre, peri or postnatal is **brain injury**, but a number of other factors have also been implicated as possible causes of learning disabilities.

- Prenatal causes
 - ✓ Smoking
 - ✓ Illicit drugs
 - ✓ Use of alcohol
- Peri natal causes
 - ✓ Prolonged labour and difficult delivery
 - ✓ Anoxia
 - ✓ Prematurity/low birth weight
 - ✓ Trauma caused by medical instruments such as forceps
- Postnatal causes
 - ✓ Strokes
 - ✓ Concussions
 - ✓ Meningitis/ encephalitis
 - ✓ High fever
 - ✓ Head injury resulting from falls or accidents

5.3.2. Genetic Hereditary influences

Are learning disabilities hereditary? Researchers investigating this question believe that some learning problems are indeed inherited. For example, reading and spelling deficits are substantially inherited.

5.3.3. Biochemical abnormalities

This refers to the presence of certain chemical substances in our bodies. This could be due to the inability of the body to metabolize certain vitamins, artificial colouring and flavours used in some foods.

5.3.4. Environmental possibilities

Environmental factors that may cause SLD include:

- **Nutrition:** Severe malnutrition at an early age can affect the central nervous system hence affect the learning and development of the child. Food additives such as food colourings, flavours and preservatives used in juices and foods may affect the brain of a developing foetus, hence resulting into learning disability.
- **Health:** Diseases such as cerebral malaria, meningitis, mumps, encephalitis and measles may affect the brain growth and development of a learner hence results into learning difficulties after recovery.



SELF-ASSESSMENT 5.3

1. Discuss how environmental factors can trigger learning disabilities
2. What are other causes of learning disabilities?

5.4. Characteristics of learners with Learning Disabilities



ACTIVITY 5.4

1. You now know the categories of learning disabilities, what are the characteristics of:
 - Learners with Dyslexia
 - Learners with Dysgraphia

Characteristics of learners with Dyslexia

- Reads slowly and with difficulty
- Experiences decoding errors, especially with the order of letters
- Shows wide disparity between listening comprehension and reading comprehension of some text
- Has trouble with spelling
- May have difficulty with handwriting

- Exhibits difficulty recalling known words
- Has difficulty with written language
- May experience difficulty with math computations
- Decoding real words is better than nonsense words
- Substitutes one small sight word for another: a, I, he, the, there, was

Characteristics of learners with Dyscalculia

- Shows difficulty understanding concepts of place value, and quantity, number lines, positive and negative value, carrying and borrowing
- Has difficulty understanding and doing word problems
- Has difficulty sequencing information or events
- Exhibits difficulty using steps involved in math operations
- Shows difficulty understanding fractions
- Is challenged making change and handling money
- Displays difficulty recognizing patterns when adding, subtracting, multiplying, or dividing
- Has difficulty putting language to math processes
- Has difficulty understanding concepts related to time such as days, weeks, months, seasons, quarters, etc.
- Exhibits difficulty organizing problems on the page, keeping numbers lined up, following through on long division problems

Characteristics of learners with Dysgraphia

- May have illegible printing and cursive writing (despite appropriate time and attention given the task)
- Shows inconsistencies: mixtures of print and cursive, upper and lower case, or irregular sizes, shapes or slant of letters
- Has unfinished words or letters, omitted words
- Inconsistent spacing between words and letters
- Exhibits strange wrist, body or paper position
- Has difficulty pre-visualizing letter formation
- Copying or writing is slow or laboured
- Shows poor spatial planning on paper
- Has cramped or unusual grip/may complain of sore hand
- Has great difficulty thinking and writing at the same time (taking notes, creative writing.)

Characteristics of learners with Dyspraxia

- Exhibits poor balance; may appear clumsy; may frequently stumble
- Shows difficulty with motor planning
- Demonstrates inability to coordinate both sides of the body
- Has poor hand-eye coordination
- Exhibits weakness in the ability to organize self and belongings
- Shows possible sensitivity to touch
- May be distressed by loud noises or constant noises like the ticking of a clock or someone tapping a pencil
- May break things or choose toys that do not require skilled manipulation
- Has difficulty with fine motor tasks such as colouring between the lines, putting puzzles together; cutting accurately or pasting neatly
- Irritated by scratchy, rough, tight or heavy clothing

Characteristics of learners with Dysphasia, or Aphasia

- Difficulty remembering words
- Difficulty naming objects or people
- Difficulty speaking in complete sentences
- Difficulty speaking in any fashion
- Difficulty reading or writing
- Difficulty expressing thoughts and feelings
- Difficulty understanding spoken language
- Using incorrect or jumbled words
- Using words in the wrong order



SELF-ASSESSMENT 5.4

1. What are the characteristics of learners with the following conditions?
 - Dyspraxia
 - Dysphasia, or Aphasia
2. What signs or symptoms that a learner with dyslexia may display?

5.5. Teaching and learning approaches for learners with Learning Disabilities



ACTIVITY 5.5

1. What strategies would you use to support learners who have writing difficulties?

5.5.1. Teaching and learning approaches for learners with dyslexia

- Provide a quiet area for activities like reading, answering comprehension questions
- Read aloud to learners regularly
- Mnemonics can help with spelling difficult words the learner always struggles with (such as Big Elephants Can't Always Use Small Exits to remember the spelling of "because").
- New concepts and vocabulary should be introduced gradually
- Use books with large print and big spaces between lines
- Provide meaningful reading materials such as dictionaries, categorized list of words
- Dyslectic learners struggle with copying notes from the black board, provide printed notes or assign someone to help her/ him with note taking
- Let the child read aloud (oral reading). If the child makes mistakes, they can be easily identified by the teacher and corrected
- Read as a group (choral reading). Here the children get both auditory and visual stimulation to correct themselves.
- Use of colours also helps in providing some useful hints to children who have problems with reading. For example, if the child confuses b and d, b could be coloured with green and d with red
- Allow the use of a laptop or any other computer for in-class essays
- Use multi-sensory teaching methods
- Teach students to use logic rather than rote memory
- Present material in small units

5.5.2. Teaching and learning approaches for learners with dyscalculia

- Allow use of fingers and scratch paper
- Use diagrams and draw math concepts
- Provide peer assistance
- Use concrete material such as buttons, straws, seeds, pebbles and beads to teach children how to count
- Use a lot of visual aids to teach simple mathematical operations and concepts
- Concepts such as time and money should be linked to day to day events. Use of meaningful vocabulary which includes phrases as tomorrow, in five minutes, as soon as possible will help the child in increasing his/her awareness about concepts related to time.
- Give smaller number of problems to these children. These children can also be given some extra time to complete maths assignment.
- Suggest use of coloured pencils to differentiate problems
- Work with manipulatives
- Draw pictures of word problems
- Use mnemonic devices to learn steps of a math concept
- Use rhythm and music to teach math facts and to set steps to a beat
- Schedule computer time for the student for drill and practice

5.5.3. Teaching and learning approaches for learners with Dysgraphia

- Provide sufficient time for writing activities
- Provide notes or outlines to reduce the amount of writing required
- Encourage the children to write more in a non-threatening environment. This helps the children to gain confidence over themselves.
- Match the posture, pencil grip and position of the paper when a child is writing.
- Have students form letters using clay
- Peers with good writing could also become models for those learners, who manifest problems with writing.
- Suggest use of word processor
- Avoid chastising student for sloppy, careless work
- Use oral exams whenever necessary
- Allow use of tape recorder for lectures where necessary

- Allow the use of a note taker
- Reduce copying aspects of work
- Suggest use of pencil grips and /or specially designed writing aids
- Provide alternatives to written assignments (video-taped reports, audio-taped reports)

5.5.4. Teaching and learning approaches for learners with Dyspraxia

- Pre-set students for touch with verbal prompts, “I’m going to touch your right hand.”
- Avoid touching from behind or getting too close and make sure peers are aware of this
- Provide a quiet place, without auditory or visual distractions, for testing, silent reading or work that requires great concentration
- Warn the student when bells will ring or if a fire drill is scheduled
- Whisper when working one to one with the child
- Allow parents to provide earplugs or sterile waxes for noisy events such as assemblies
- Make sure the parent knows about what is observed about the learner in the classroom
- Refer student for occupational therapy or sensory integration training
- Be cognizant of light and light sources that may be irritating to child
- Use manipulatives, but make sure they are in learners’ field of vision and don’t force student to touch them

5.5.5. Teaching and learning approaches for learners with Dysphasia, or Aphasia

- Ensure that students have the opportunity for a quite environment.
- Teacher should communicate slowly, clearly, and repetitively using gestures and pictures.
- Teacher should simplify sentence structure and reduce the rate of speech
- Encourage student to be as independent as possible.
- Allow students as much time as needed without interruption to express verbally.
- Provide word choice boards, vocabulary flashcards, and pictorial representations.
- Explicitly teach semantics and syntax concepts.

- Present information using multiple modalities.
- Allow student to use many forms of expression such as writing, drawing, choices, gestures, or yes/no responses.
- Allow students the opportunity to prepare anything that will be shared in class.
- Allow alternative option to oral presentations such as visual presentation or recording.

Examples:

In the classroom a teacher could allow a student with aphasia to submit a verbal presentation by using a power point with written explanations for what students would be verbalizing.

During testing student may be able to take alternative test in which they will be able to express language in any way that works best for them. This could be all verbally, in drawings, or in another form.

5.5.6. General interventions for learners with Learning Disabilities

- Show, demonstrate and model
- Utilize multi-sensory learning
- Avoid distractible surroundings
- Break information down into smaller units
- Allow plenty of time to these children to work upon a task as they have poor time management skills
- These children need to do a task many times before they can master it
- Utilize peer tutoring and cooperative learning. In peer tutoring, allow the child with a learning disability to be a tutor also
- Make information as concrete as possible
- Read test materials to the student
- Find out how the student learn best and utilize the learning channel
- Remember that 'Individualization' does not always mean a student has to be taught one to one, it simply means the programme should be tailored to the student's needs and capabilities
- Praise and encouragement are the key words in channelizing the efforts towards these children's learning in the right direction



SELF-ASSESSMENT 5.5

1. How would you help a learner with dyscalculia in your classroom?
2. What strategies would you use to help a learner with aphasia improve his/ her academic works?



SKILLS LAB

Visit a nearest school, identify a child with SLD, write a two-page document on strategies you can use to help that child.



END OF UNIT ASSESSMENT

3. What is a Specific Learning Disability?
4. How can you identify a learner with the following conditions?
 - Dyslexia
 - Dysgraphia
 - Dyscalculia
5. In groups, discuss the specific learning disability you may have noticed with learners and how you helped them

UNIT 6

LEARNERS WITH COMMUNICATION DIFFICULTIES: (SPEECH AND LANGUAGE DIFFICULTIES)

Key Unit Competence: Identify the characteristics of learners with speech and language difficulties and use appropriate approaches to teach them



INTRODUCTORY ACTIVITY

Adam was a typical child at birth. He looked normal. At birth he was 4.1kg, very healthy and went through all developmental milestones at normal times. He crawled at six months and uttered his first word at 12 months. His speech and language continued to develop normally. However, when it was time to eat solid food, Adam did not want to eat any foods that were not pureed. By the time Adam was 3 years old, he could not pronounce **n, t, d, l** and **s** correctly. When Adam was 4 years old, he could hear what you say, but not understand. For example, her mom would ask him to go and wash his hands after eating, and he would ask several times "I do what?". Her mom would repeat, rephrase the sentences but still Adam would not understand what her mom says. Adam did not seem to understand simple directions, question words like why, how, sequencing, verb tense and common language concepts. He was not acquiring language concepts that children learn without formal teaching, and his pronunciation was not getting better. When Adam was in primary one, the teacher noticed that he did not understand "yes" and "no" questions and when asked simple things that he was supposed to know at his age, he would say "I don't know". Adam was still a picky boy and would eat selected food. The teacher advised the parents to take Adam to the speech pathologist at King Faisal Hospital. Adam was diagnosed with mild to moderate language disorder, mild articulation difficulty, low facial muscle tone and mild degree of hearing impairment. With the help of the teacher, parents and speech pathologist, Adam has made great progress. He has matured socially and improved his speech and language skills. His teacher said that Adam is a smart boy who has courage and determination to improve on his language difficulties. He said that his future is bright.

1. Briefly explain the challenges that Adam encountered?
2. Explain the roles of different people who helped Adam in his struggle to improve his language.

6.1. Definition and categories of Communication Difficulties: Speech and Language Difficulties



ACTIVITY 6.1

1. What do you understand by the word "Communication"?
2. Have you ever met people who have communication difficulties? How would you define communication difficulties?
3. What is the difference between speech and language?

➤ Definition of communication

Communication is the process of sending and receiving messages through verbal or nonverbal means, including speech, or oral communication; writing and graphical representations (such as infographics, maps, and charts); and signs, signals, and behaviour. More simply, communication is said to be «the creation and exchange of meaning.»

Communication is a very important aspect of human life. Our lives revolve around communication in many crucial ways. Despite its importance and constant presence in our live, we seldom think much about communication unless we have a problem with it. It is also the one of the most interrelated processes people undertake. Speech and Language are two highly interrelated components of communication. Problems in either can significantly affect a person's daily life.

➤ Difference between Speech and Language

Speech is verbal communication with others. A child, when he has not learnt the rules of a language, blurts out in monosyllables and yet his mother understands what he means. Speech is all about sounds, and a small child learns gradually the correct sounds that make up speech. For a kid who is still learning the rules of a language, speech is the only way to communicate with others.

Speech is articulation of language into sounds using voice and fluency. Some have speech problems that need attention from speech therapists. If a kid has problems expressing him/herself, or others do not understand what he is trying to say, it is said that he has a speech problem. It occurs because there is no synchronization between his lip and tongue movement along with the sounds he is trying to make. This is also the case with an adult when he suffers from a stroke making it difficult to speak fluently.

➤ Language

Language is a tool that allows people to communicate with each other. It consists of words that can be joined in a meaningful manner to express an idea. Different languages have different rules and, sometimes, people who are not native to a language find it difficult to understand the idea behind a message. For example, in English language, it is raining cats and dogs might sound alien to someone whose native language is not English as he cannot think of raining cats and dogs, but those whose first language is English know pretty well that it just means raining hard. Language, apart from speech, can be expressed by writing the text, which is one mode to read and understand much about a language.

While **speech** involves the physical motor ability to talk, **language** is a symbolic, rule governed system used to convey a message. In English, the symbols can be words, either spoken or written.

➤ Communication Difficulties

Communication difficulties are defined as an observed disturbance in the normal speech and language process. These may include process of listening, speaking, reading, writing and thinking.

Communication difficulties can be classified into two:

- Speech difficulties
- Language difficulties

6.1.2. Speech difficulties

Speech difficulties refers to difficulties producing sound as well as difficulties of voice quality and fluency. Speech involves the production and articulations of sounds in the language. Indicators of speech difficulty may be seen in a learner if he or she produces speech that deviates from normal speech as compared to others. Speech difficulties in a learner may be noted when there is lack of fluency in speech, poor pronunciation of words and problems in voice production.

There are three main types of speech difficulties, these are:

- Articulation difficulties
- Fluency difficulties
- Voice difficulties

Let us look at each of them.

6.1.1. 1. Articulation difficulties

An articulation difficulty is a speech difficulty related to problems of pronunciation. A child with articulation difficulty may find it difficult to articulate sounds in isolation or in sentences. The child may either:

- Pronounce the sound wrongly
 - Omit it in words
 - Substitute it for another or
 - Add an additional sound next to it whenever it occurs in words or sentence

There are four main types of articulation difficulties. These are:

Mal- articulating: This refers to the wrong pronunciation of words for example/b/ whenever it occurs.

Omissions: This involves deleting or dropping certain consonants from words by rendering speech unintelligible. For example, "boy" may be pronounced as /oy/

Substitution: This involves substituting one-word sound with another such as /w/ for /r/, as in “right” which is sounded as “weight” or substitution of /w/ for /l/ as in “yellow” where it is sounded as “yewo”

Additions: This is where a learner adds vowel sounds to words ending with consonants such as "eat" may be pronounced "eati"

6.1.1.2. Fluency Difficulties

Fluency of speech is significant problem for persons with a fluency disorder. Their speech is characterized by repeated interruptions, hesitations or repetitions that seriously interfere with the flow of communication. Fluency difficulty is therefore a condition where one is unable to talk in an easy and relaxed way resulting in an unnaturally hesitant speech. For example, stammering/ stuttering will affect the smooth flow of speech. Learner with fluency difficulties may have:

Prolongation: A Learner who is a stammer/ stutter tend to abnormally prolong sounds in words. For example, the word “tomato” may be pronounced as “to..... mato”

Complete blockage: This is when a learner gets stuck during the pronunciation of the first sound of a word. For example, for “Umushyitsi” the learner may only sound “U”.

6.1.1.3. Voice difficulties

These are abnormalities due to the pitch, intensity and quality of one's voice. The following are the main voice difficulties that may be experienced by children:

- **Absence of voice:** Some children may not be able to produce any sound due to problems in the vocal cords
- **Hoarse voice:** Hoarse or husky voice may be due to misuse or abuse of the voice which strains the vocal cords. The cords may be strained during shouting, cheering or moaning for a long time.
- **Too high or too low picked voice:** We vary the pitch of voice in order to produce pitch with relevant tone and intonation to convey the intended meaning. Some children use too high or too low pitch or monotonous voice which interferes with meaning.
- **Too loud or too soft voice:** We vary the intensity of our voice when we are speaking depending on the situation and context. For example, we tend to raise our voice when we are speaking to somebody at a distance, when addressing a large crowd or when emphasizing a point. We whisper when telling a secret and we tend to talk in low tones when distressed and shout when excited. Learners with voice difficulties may be unable to vary their voices.

6.1.2. Language difficulties

There are two main types of language difficulties. These are:

- Receptive Language difficulties
- Expressive language difficulties

6.1.2.1. Receptive Language difficulties

Learners with receptive language difficulties may not be able to perceive or comprehend spoken or written language due to inability to:

- Assign meaning to words they hear or read because they have not formed the concepts of the objects and event, they describe
- Understand different parts of language such as nouns, verbs, adjectives and plurals
- Interpret intonation and stress patterns in utterances
- Understand different sentences because they have not mastered how they are formed

- Hear or read due to sensory difficulties
- Retain and recall words read or heard before responding accordingly

6.1.2.2. Expressive Language difficulties

Expressive language involves conceptualization of message, symbolization and memorizing the messages, use of intonation and stress, general use of language, use of senses, use of speech and use of voice and generally use of the body. You may find that learners have difficulties in some or most of these areas. Learners with expressive language difficulties have problems in:

- *The use of symbols:* Some learners have difficulties with mastering the use of the linguistics symbols such as sounds, letters or signs that convey meaning in language
- *Memory problems:* Memory problems may occur when a learner is not able to retain words already acquired for later life, recall the sequence of sounds and letters in words and sentences.
- *Problems with the use of appropriate intonation and stress:* Some learners use flat and monotonous voices, which lack proper intonation and stress. As a result, they are unable to convey the intended meaning of a given utterance.



SELF-ASSESSMENT 6.1

1. Explain the term "Communication difficulties"
2. Describe the two components of communication
3. Describe the two main types of language difficulties?

6.2. Causes and characteristics of Communication Difficulties: Speech and Language Difficulties



ACTIVITY 6.2

1. Do you attribute children's language development to a natural process or do you think environment plays a role in the development of language in children?
2. Think about the learner you have met with and suspected to be having communication difficulties. List some characteristics which suggest that one has a communication difficulty?

Causes of language difficulties are different from those of speech difficulties.

6.2.1. Causes of speech difficulties

Main causes of speech difficulties include:

- Structural defects affecting the organs of speech. For example, cleft palate or cleft lip
- Psychomotor difficulties such as difficulty in activating the organs of speech to move and control their movement in order to produce a particular sound. For example, a patient with paralysis may not be able to move the tongue or lips to produce a sound
- Delayed language development as a result of delayed growth and development hence lagging behind their peers
- Hearing Impairments is a major cause of articulation difficulties.

6.2.2. Causes of language difficulties

Main cause of language difficulties is brain damage or deficits affecting the areas of the brain dealing with language. This may lead to the following:

- Memory deficits
- Encoding and decoding difficulties
- Problems related to vocabulary acquisition and sentence construction
- Attention deficits
- Inability to associate the message received through the sense and what they symbolize or with previous experience.

➤ Characteristics of learners with communication difficulties

Learners with communication difficulties may display the following characteristics:

- May experience problems learning subject content that demand oral or written language
- Too low or too high pitch
- Not taking part in conversations
- May tend to speak in isolated words and short sentences
- Difficulty putting words together to make sentences
- Using unintelligible speech
- Not responding to voices or everyday sounds
- Stammering or stuttering
- Speaking too fast
- Substituting, omitting, distorting or adding speech sounds



SELF-ASSESSMENT 6.2

1. Discuss the causes of speech difficulties?
2. Elaborate on different triggers of language difficulties?
3. Discuss the characteristics of learners with Speech and Language difficulties

6.3. Teaching and learning approaches for learners with communication difficulties: Speech and Language impairment



ACTIVITY 6.3

1. What do you think parents and teachers should do to help a child with communication difficulties?

The role played by the parents and teachers in the development of the child's communication is central in the child's language development. However, it is important to note that the foundation of the child's language begins at home and is later supplemented by teachers as soon as the child enters school.

The following are approaches that teachers and parents might use to help learners with communications difficulties:

- Interact with the child right from birth and throughout childhood in order to establish a bond which is the corner stone of communication
- Encourage the child's siblings and peers to involve him/ her in their activities
- Engage the child in all activities that are done by his or her age mates
- Exposing the child through visits to social functions, places of interest friends and relatives
- Refer the learner to education assessment centre for assessment and early intervention
- Refer them to other professionals such as speech therapists, Ear, Nose & Throat(ENT) specialist, occupational therapist and physiotherapists.
- Engage Sign Language interpreters in case of a child who is deaf



SELF-ASSESSMENT 6.3

1. Explain the role played by both teachers and parents in the communication development of the child?
2. Which other ways may teachers use to support learners with communication difficulties



SKILLS LAB

1. Visit a nursery school and identify a child expected to have communication difficulties. Spend three hours with the child. Write down all the characteristics of the child and suggest strategies you could use to help that child improve her/ his language and speech.



END OF UNIT ASSESSMENT

1. What are some of the language difficulties observed in children?
2. Discuss the three broad categories of speech difficulties and give an example of each
3. Discuss the role that teachers may play to support learners with CD?

UNIT 7

LEARNERS WITH DOWN SYNDROME

Key Unit Competence: Explain the characteristics of learners with Down syndrome and use appropriate methods to teach them



INTRODUCTORY ACTIVITY



Observe those pictures and respond to the following questions:

1. What are common physical features do the children on the pictures have?
2. At your school, surrounding areas or in your community, have you seen or met someone with the same physical features? If yes what other characteristics have you observed about that person (in regard to his/her intellectual abilities, speech or communication skills, social skills, etc)

7.1. Definition, causes and types of Down syndrome



ACTIVITY 7.1

- What is the Definition of Down syndrome?
- What causes Down syndrome
- Types of Down syndrome

7.1.1. *What is Down syndrome?*

Down syndrome is a condition in which a person has an extra chromosome. Chromosomes are small “packages” of genes in the body. They determine how a baby’s body forms during pregnancy and how the baby’s body functions as it grows in the womb and after birth. Typically, a baby is born with 46 chromosomes. Babies with Down syndrome have an extra copy of one of these chromosomes, chromosome 21. A medical term for having an extra copy of a chromosome is ‘trisomy.’ Down syndrome is also referred to as Trisomy 21. This extra copy changes how the baby’s body and brain develop, which can cause both mental and physical challenges for the baby.

➤ Why is Down Syndrome Referred to as a genetic condition?

The human body is made of cells; all cells contain a centre, called a nucleus, in which genetic material is stored. This genetic material, known as genes, carries the codes responsible for all our inherited characteristics. Genes are grouped along rod-like structures called chromosomes. Normally, the nucleus of each cell contains 23 pairs of chromosome, half of which are inherited from each parent. In individuals with Down syndrome, however, the cells usually contain 47, not 46, chromosomes; the extra chromosome is the 21st. This excess genetic material, in the form of additional genes along chromosome 21, results in Down syndrome. The extra 21st chromosome is detected by using a procedure called a karyotype. A karyotype is a visual display of the chromosomes grouped by size, number and shape. Chromosomes may be studied by examining blood or tissue cells. Individual chromosomes are identified, stained and numbered from largest to smallest. Ninety-five percent of occurrences of Down syndrome result from the presence of an extra (third) chromosome, a condition described as Trisomy 21.

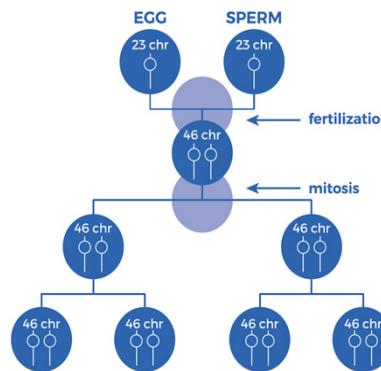
7.1.2. *The cause of Down syndrome*

Down syndrome is usually caused by an error in cell division called **nondisjunction**. However, two other types of chromosomal abnormalities, mosaicism and translocation, are also implicated in Down syndrome although to a much lesser extent. Regardless of the type of Down syndrome a person

may have, all people with Down syndrome have an extra, critical portion of chromosome 21 present in all or some of their cells. This additional genetic material alters the course of development and causes the characteristics associated with the syndrome.

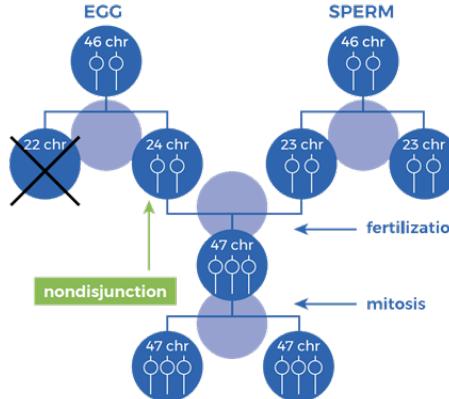
- **Nondisjunction:** Nondisjunction is a faulty cell division that results in an embryo with three copies of chromosome 21 instead of the usual two. Prior to or at conception, a pair of 21st chromosomes in either the sperm or the egg fails to separate. As the embryo develops, the extra chromosome is replicated in every cell of the body. This error in cell division is responsible for 95 percent of all cases of Down syndrome.

NORMAL CELL DIVISION



During fertilization, the 23 chromosomes from the egg and sperm combine. The resulting fertilized egg has 46 chromosomes. During mitosis, the cell replicates itself and divides into two cells with 46 chromosomes in each.

TRISOMY 21 (NONDISJUNCTION CELL DIVISION)



Nondisjunction is the failure of the pair of chromosomes to separate during meiosis, which is the process by which egg and sperm cells replicate themselves and divide. Nondisjunction results in both 21st chromosomes being carried to one cell and none to the other.

Note: It is not currently known why nondisjunction occurs, although research has shown that it increases in frequency as a woman ages.

Incidence of Down syndrome and maternal age

Maternal age	Incidence of Down syndrome
20	1 in 2000
24	1 in 1300
27	1 in 1050
30	1 in 900
33	1 in 600
36	1 in 300
40	1 in 100
42	1 in 70
45	1 in 30
47	1 in 20
48	1 in 15
49	1 in 10

7.1.3. Types of Down syndrome

There are three types of Down syndrome. People often can't tell the difference between each type without looking at the chromosomes because the physical features and behaviors are similar.

- **Trisomy 21:** About 95% of people with Down syndrome have Trisomy 21. With this type of Down syndrome, each cell in the body has 3 separate copies of chromosome 21 instead of the usual 2 copies.
- **Translocation Down syndrome:** This type accounts for a small percentage of people with Down syndrome (about 3%). This occurs when an extra part or a whole extra chromosome 21 is present, but it is attached or “trans- located” to a different chromosome rather than being a separate chromosome 21.
- **Mosaic Down syndrome:** This type affects about 2% of the people with Down syndrome. Mosaic means mixture or combination. For children with mosaic Down syndrome, some of their cells have 3 copies of chromosome 21, but other cells have the typical two copies of chromosome 21. Children with mosaic Down syndrome may have the same features as other children with Down syndrome. However, they may have fewer features of the condition due to the presence of some (or many) cells with a typical number of chromosomes.



SELF-ASSESSMENT 7.1

1. What is Down syndrome?
2. In few words explain the cause of Down syndrome
3. List three types of Down syndrome

7.2. Characteristics of children with Down syndrome and strategies to teach them



ACTIVITY 7.1

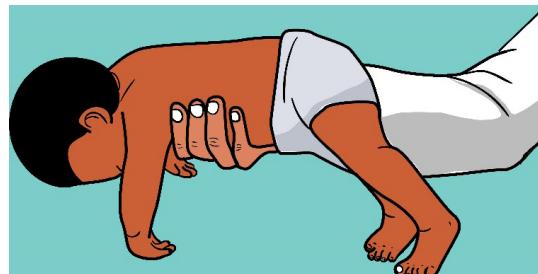
- What are characteristics of children with Down syndrome
- What are strategies to help children with Down syndrome in the classroom

7.2.1. Characteristics of children with Down syndrome

Children with Down syndrome can be identified based on their body shape and size, facial features, intellectual or learning ability.

a. Identifying a child with Down syndrome by body shape and size

❖ Look for low muscle tone



Babies with low muscle tone are usually described as floppy or feeling like a "rag doll" when held. This condition is known as hypotonia. Infants usually have flexed elbows and knees, whereas those with low muscle tone have loosely extended joints.

- While infants with normal tone can be lifted and held from under the armpits, babies with hypotonia typically slip from their parents' hands because their arms rise without resistance.

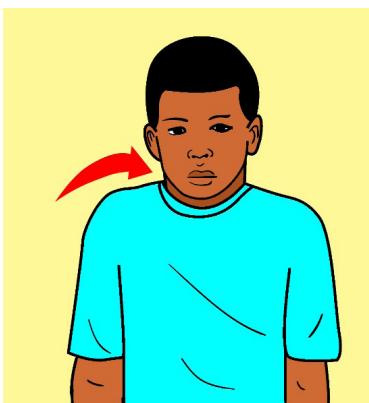
- Hypotonia results in weaker stomach muscles. Therefore, the stomach may extend outward more than usual.
- Poor muscle control of the head (head rolling to the side or forward and backward) is also a symptom.

❖ **Look for shortened height**



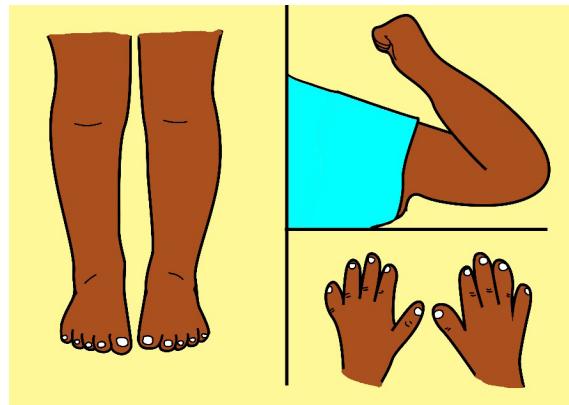
Children affected by Down syndrome often grow slower than other children, and are therefore shorter in stature. Newborns with Down syndrome are usually small, and a person with Down syndrome will most likely remain short through adulthood. A study conducted in Sweden shows that the mean birth length is 48 centimeters (18.9 inch) for both males and females with Down syndrome. In comparison, the average length for those without the disability is 51.5 cm.

❖ **Look for a short and wide neck**



Also look for excess fat or skin surrounding the neck. In addition, neck instability tends to be a common issue. While neck dislocation is uncommon, it is more likely to occur in people with Down syndrome than those without the disability. It is necessary to be aware of a lump or pain behind the ear, a stiff neck that doesn't heal quickly, or changes in the way a person walks (appearing unsteady on their feet).

❖ **Look for short and stocky appendages**

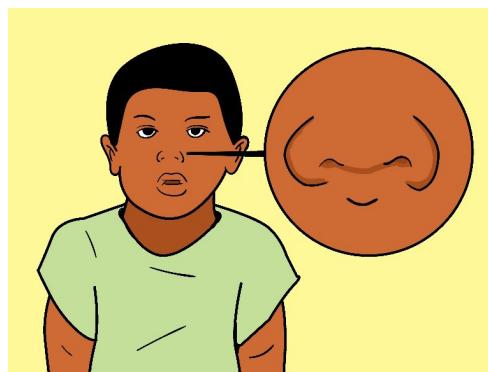


This includes legs, arms, fingers, and toes. Those with Down syndrome often have shorter arms and legs, a shorter torso, and higher knees than those without it.

- People with Down syndrome often have webbed toes, which is distinguished by the fusing together of the second and third toe.
- There may also be a wide space between the big toe and second toe, and a deep crease on the sole of the foot where this space is.
- The fifth finger (pinky) can sometimes only have 1 flexion furrow, or place where the finger bends.
- Hyper flexibility is also a symptom. This is identifiable by joints that seem to easily extend beyond the normal range of motion. A child with Down syndrome may easily “do the splits,” and may be at risk of falling over as a result.
- Having one singular crease across the palm of the hand, and a pinky finger that curves towards the thumb are additional characteristics.

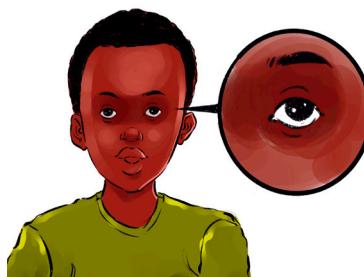
b. Identifying a child with Down syndrome by facial features

❖ **Look for a small, flat nose**



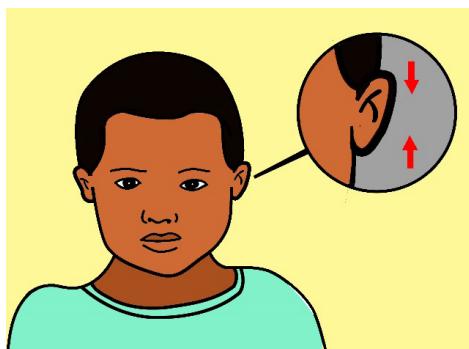
Many people with Down syndrome are described as having flat, rounded, wide noses with small nasal bridges. The nasal bridge is the flat section of the nose between the eyes. This area can be described as being “pushed in.”

❖ **Look for slanted eye shape**



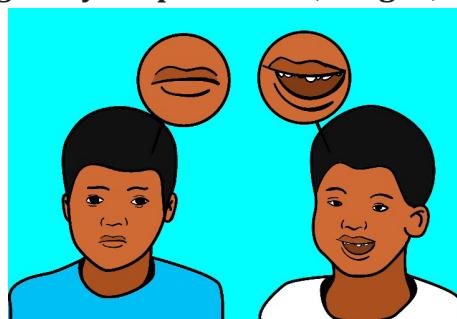
Those with Down syndrome usually exhibit round eyes that slant upwards. While the outer corners of most eyes usually turn downward, those with Down syndrome have eyes that turn upward (almond-shaped).

❖ **Look for small ears**



People with Down syndrome tend to have smaller ears that are set lower on the head. Some may have ears whose tops fold over slightly.

❖ **Look for an irregularly shaped mouth, tongue, and/or teeth**



Due to low muscle tone, the mouth may appear to be turned downward and the tongue may protrude from the mouth. Teeth may come in later and in a different order than usual. Teeth may also be small, unusually shaped, or out of place.

c. Identify learners with Down syndrome by looking at their developmental and intellectual abilities

All people with Down syndrome experience cognitive delays, however, the effect is usually mild to moderate and is not indicative of the many strengths and talents that each individual possesses. Children with Down syndrome learn to sit, walk, talk, play, toilet train and do most other activities only somewhat later than their peers without Down syndrome.

Speaking may or may not pose a challenge for an individual with Down syndrome. It all depends on the person. Some learn sign language or another form of alternative communication instead of speaking. People with Down syndrome easily grasp new words and their vocabularies become more advanced as they mature. Because grammar rules are inconsistent and hard to explain, those with Down syndrome may have difficulty mastering grammar. As a result, they usually use shorter sentences with less detail. Expression can be hard for them because their motor skills are impaired. Speaking clearly may also present a challenge. Many people with Down syndrome benefit from speech therapy.

Developmental Milestones

Milestone	Down Syndrome Range	Typical Range
Gross Motor		
Sit alone	6-30 months	5-9 months
Crawls	8-22 months	6-12 months
Stand	12-39 months	8-17 months
Walks alone	12-48months	9-18 months
Language		
First word	12-48 months	8-23 months
Two-Word Phrases	2-7 ^{1/2} years	15-32 months
Personal/Social		
Responsive smile	11- /2-5 months	1-3 months
Finger feeds	10-24 months	7-14 months
Drinks from cup	12-32 months	9-17 months
Uses spoon	13-39 months	12-20 months
Bowel control	2-7 years	16-42 months
Dresses self	31/2-81/4 years	31/4-5 years

7.2.2. Strategies to help learners with Down syndrome

- Use teaching methods that involve cues and objects
- Pair pictures with spoken words
- Present information visually (e.g. overhead projector, posters, pocket charts, chalkboard)
- Use simple directions
- Break down directions into small steps
- Allow adequate response time
- Assign fewer problems to a page
- Give students more freedom to choose their work activities
- Foster independence and self-reliance by balancing developmental and chronological needs as higher academic expectations are set in the classroom
- When presenting independent work, try to divide it into small segments (e.g. fold test in half).
- Allow extra time to complete tasks. Reduce length of assignments
- Avoid large group and whole class instruction as they are least effective
- Be aware that some students may lack the fine motor coordination to use a keyboard and mouse effectively.
- Assistive and/or adaptive equipment such as specialized key guards or alternative keyboard can be used
- Minimize distractions. When choosing stimuli or objects, ensure that they have clear and obvious dimensions that vary on as few dimensions as possible (e.g., colour, size, texture)
- Pay attention to seating. Avoid seating students with Down syndrome near a window, door or high traffic area
- Give immediate feedback or praise to ensure that students associate rewards with their efforts



SELF-ASSESSMENT 7.2

1. Identify the characteristics of children with Down syndrome
2. Explain 5 approaches to teach learners with Down syndrome



SKILLS LAB

Visit a special center or school that have children with different types of disabilities. Identify children with Down syndrome. Observe identified children/child in the classroom during teaching time. Finally, advice the teacher in regards to suitable teaching approaches to be used in order to respond to the needs of these learners with Down syndrome.



END OF UNIT ASSESSMENT

1. What is Down syndrome?
2. What does nondisjunction mean?
3. In few words, explain why Down syndrome is referred to as a genetic condition?
4. How can you identify a child with Down syndrome?
5. List 5 approaches to be used when teaching learners with Down syndrome

UNIT 8

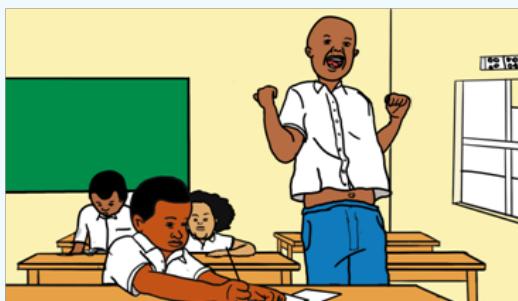
LEARNERS WITH ATTENTION DEFICIT HYPERACTIVITY DISORDER (ADHD) AND LEARNERS AUTISM

Key Unit Competence: Explain the characteristics of learners with autism and ADHD and use appropriate approaches to teach them



INTRODUCTORY ACTIVITY

Kalisa is a 13-year boy and was born in rural village. In his daily activities he had inattention to accomplish tasks and was not able to follow some instructions because of his hyperactivity. His parents had tried to take him to the nearest school in order to help him but his condition did not improve. He interrupted his classmates during class activities (taking notes, talking, throwing things, etc.). During break time he would run, jump and drive imaginary vehicles. Even though he was overactive he was also interested in playing music with piano or guitar and singing. His teacher had discovered that Kalisa may be good at music and then oriented him to another teacher who could use appropriate techniques to teach music and musical instrument playing to Kalisa. The teacher advised his parents to take him to a specialist, this they gladly did and Kalisa was diagnosed with ADHD (Attention Deficit Hyperactive disorder). In three years later Kalisa was able to play the piano and sing some songs. His parents became happy because of their child's attainment and his parents want to support him to make album of his songs.



Question:

1. Describe Kalisa's behaviours in her class and outside?

8.1. Learners with Attention Deficit Hyperactivity Disorder (ADHD)

8.1.1. Definition, causes and characteristics of Attention Deficit Hyperactivity Disorder (ADHD)



ACTIVITY 8.1.1

Use books or other sources of information to answer the following questions:

2. What do you understand by Attention Deficit Hyperactivity Disorder (ADHD)?
3. According to you, what do you think as risk factors of ADHD?
4. What do you understand by the following terms?
 - Inattention
 - Hyperactivity
 - impulsivity

➤ Definition of Attention Deficit Hyperactivity Disorder

Attention Deficit Hyperactivity Disorder is defined as persistent pattern of inattention and/or hyperactive impulsivity that is more frequent and severe than is typically observed in individual at a comparable level of development.

In order to make clear the meaning of ADHD, there are guidelines that help everyone to describe it but even though those criteria may seem to happen to every person, also there is a persistent or a chronic condition for those who have Attention Deficit Hyperactive Disorder which makes some differences. It is believed to affect around 3 to 5 percent of children who are or before 7 years old. It is a chronic condition that affect a million of children in the world and often continues in adulthood. It a combination of persistent problem such as sustaining attention, hyperactivity and impulse behaviours.

➤ Causes of Attention Deficit Hyperactivity Disorder (ADHD)

The exact cause of ADHD is not well known but researchers explore possible possibilities including neurological foundations, hereditary and environmental conditions.

➤ Neurological foundation: using the neuroimaging technology, researchers found that some parts of brain appear to exhibit abnormalities in persons with ADHD. The front lobes are one part

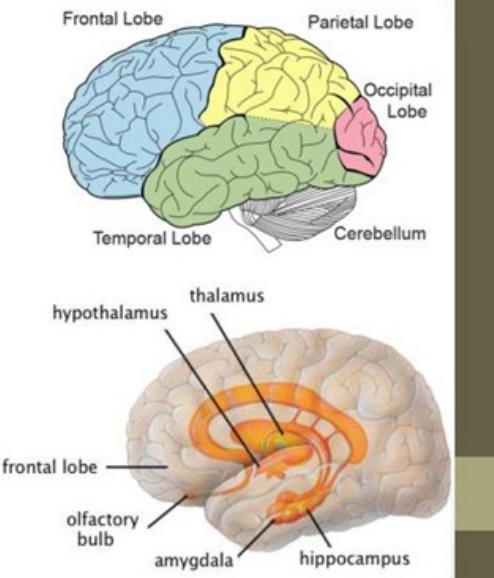
of the brain in charge of executive functions such as self-regulation, working memory, inner speech. The basal ganglia are responsible in controlling and coordination of motor behaviour. Attention Deficit Hyperactive Disorder results from dysfunction of neurotransmitter of dopamine in the region of the brain that control activity and attention.

Areas of the Brain Affected by ADHD

The primary areas of the brain that are affected in ADHD are:

- **Frontal Lobe** (anterior cingulate cortex - acc, prefrontal cortex - pfc, orbitofrontal cortex - ofc, dorsolateral prefrontal cortex - dlpfc)
- **Temporal Lobe**
- **Limbic System** (striatum, thalamus, amygdala, corpus callosum)
- **Cerebellum**

(Kolb and Whishaw, 2008; Cubillo, et al, 2012)



❖ **Hereditary factors:** There is strong evidence of the role of heredity in contributing to ADHD. Family studies revealed that a child who has ADHD is more likely to have a parent who exhibit ADHD (Barkley, 2006). Also, the investigating of monozygotic (identical) and dizygotic (fraternal) twins have consistently found a high concordance of ADHD in identical twins than in fraternal twins.

❖ **Environment factors:** Various pre-, peri-, postnatal traumas are also implicated as contributing to Attention Deficit Hyperactive Disorder (ADHD). Some examples of environmental factors include maternal smoking and alcohol abuse, lead poisoning, low birth weight and prematurity. There are other many environmental factors that researchers found to be typical examples but with poor scientific support such as too much/little sugar, bad parenting, too much television, food additive/colouring, yeast.



➤ Characteristics of learners with Attention Deficit Hyperactivity Disorder (ADHD)

Attention Deficit Hyperactivity Disorder is the chronic nature of characteristic and their duration that often lead to impaired functioning in activities of daily living. ADHD has three subtypes:

- ❖ ADHD with inattentive type, inattention indicates that child might have attention span, or difficulties of sustaining his or her attention for more than a brief period of time.
- ❖ ADHD with predominantly hyperactive-impulsive type, Hyperactivity is a condition in which a child is easily excitable or over-active. Impulsivity is the inability to think first before resorting to an action.
- ❖ ADHD with combined inattentive and hyperactive-impulse types.

ADHD has criteria for each of those subtypes. Six of these following symptoms may lead to confirm an ADHD if these symptoms last for 6 months to a degree that is maladaptive and inconsistent with developmental level.

➤ **Characteristics of learners ADHD by each subtype**

❖ **Characteristics of Inattention**

- Often fail to give close attention to details or makes careless mistake in schoolwork, work or other activities.
- Have difficulties of sustaining attention in tasks or play activities.
- Often does not seem to listen when spoken to directly.
- Does not follow through on instructions and fails to finish school work, chores, duties in the workplace (not due to oppositional behaviour or failure to understand instructions)
- Often avoid, dislike, or is reluctant to engage in tasks that require sustained mental efforts (school work and home work)
- Often loose things necessary for tasks or activities (e. g: toys, school assignments, pencils, books, or tools)
- Is often easily distracted by extraneous stimuli.
- Is often forgetful in daily living

❖ **Characteristics of learners Hyperactivities**

- Often fidgets with hands or feet or squirms in seat
- Often leave seats in classroom or in other situations in which remains seated is expected
- Often runs about, claims excessively in situation in which it is inappropriate
- Often has difficult in playing or engaging in leisure activities quietly
- Talk excessively

❖ **Characteristics of learners Impulsivity**

- Often blurts out answers before questions have been completed
- Often has difficult of awaiting turn
- Often interrupts or intrudes on others (e. g: butts into conversation or games).

The symptoms must be present in before 7 age. Clear evidence must also be present in the two or more setting (social, academic and occupational functioning...).



SELF-ASSESSMENT 8.1.1

1. Discuss the following term: Inattention, hyperactivity and impulsivity.
2. What are subtypes of ADHD learners?
3. Discuss the characteristics of children with ADHD.
4. Discuss the meaning of ADHD
5. What is the range of children from which are affected by ADHD?

8.1.2. *Teaching and learning approaches for learners with ADHD*



ACTIVITY 8.1.2

1. According to you, how can you teach learners with ADHD?

This is an important issue for many classroom teachers and parents who have children with ADHD. Most people with ADHD experience significant difficulties in school while attention and impulse control are prerequisites for success. Most of children with ADHD respond to a structured and predictable learning environment where rules and expectations are clearly stated and understood, consequences are predetermined, reinforcement is delivered immediately. Environment modifications alone are not the key to success. Educational researches believe multimodal interventions, or concurrent treatment, are generally more effective for individuals with ADHD than any one strategy.

Here are four main approaches that help to teach learners with Attention Deficit Hyperactivity Disorders

❖ **Instructional adaptations:** Instructional adaptation coupled with modification of the learning environment are powerful tools that can help people to sustain attention while cultivating a climate that fosters learning and encourage the child to control his/her behaviour. Teachers should know individual differences and learning styles of children who exhibit impairment that limit a major life activity like learning. Lerner and Lowenthal (1993) provided some suggestions for teachers:

- Place the youngster in the least distracting location in the class (in front of the class, away from doors, windows, air conditions, etc.)
- Surround the students with good role models,

- Maintain a low pupil- teacher ratio whenever through the use of aids and volunteers.
 - Avoid unnecessary changes in schedules and monitor transitions because the child with DAHD often has difficult coping with changes.
 - Maintain eye contact with the student when giving verbal instructions
 - Combine verbal and tactile cues with verbal instructions.
 - Make a list that help the student organize tasks.
 - Adapt break assignment into small chunks
 - Ensure that the student has recorded homework assignment
 - If the child has difficult staying in one place at school, alternate sitting with standing and activities that requires moving around during the day.
 - Provide activities that requires active participation such as talking through problems or acting out the steps.
 - Use learning aids such as computers, calculators, tape records, and programmed learning materials
 - Provide student opportunities to demonstrate strengths at school.
- ❖ **Behavioural interventions:** This approach helps to determine the purpose of or function that a particular behaviour serves and how to discourage or motivate. Once a good assessment is done the goal is to construct interventions that modify the antecedent or triggering behaviours and/or the consequences that are reinforcing and maintaining the undesirable performance.
- ❖ **Home - school communication:** It is essential for all pupils but especially for those who have ADHD, it is an important ingredient in promoting their success at school, the partnership must be ongoing, reciprocal, mutually respect, and student centred. Parents are encouraged to participate actively in their children's plans and collaborate with the multidisciplinary team. Teacher-parents may use strategies work best for them.
- ❖ **Medication, and counselling** represent some of available intervention options for individual with ADHD. Some medication like psychostimulants may play an important role in the treatment of behaviours of ADHD. It is good to use this medication in conjunction with educational and behavioural interventions. Teacher should not recommend to parent that their son or daughter needs to be on medication but only child's health care professional can make such a determination. Medication represent one part of the total package

and should not be seen as the panacea for ADHD. Instructional and environmental accommodation should always be the first intervention tactic used to assist pupils with Attention Deficit Hyperactive Disorder,



SELF-ASSESSMENT 8.1.2

1. Describe one method that helps schools and parents to teach learners with ADHD.
2. Discuss the instruction adaptational methods of teaching learners with ADHD that should be used by teachers.

8.2. Learners with autism

8.2.1. Definition, causes and characteristics of Autism



ACTIVITY 8.2.1

Use books or other sources of information to answer the following questions:

1. How do you understand Autism?
2. According to your mindset, what do you think are causes of autism?
3. What will push you say that a child has autism?

➤ Definition of Autism

Autism is a complex neurobiological disorder of development that lasts through a person's lifetime. Autism onset is between 0-5 years, and is three times more likely to affect males than females. Autism Spectrum Disorder (ASD) affect three area of deficiencies (also called triad of impairment) of development such as communication development, social relatedness, and behaviours.

➤ Brief introduction about Autism

People with autism have problems with social interactions and communication, so they may have trouble of having conversation with others, they may not look at in the eye. They may sometimes have behaviours that they have to or that they do over and over again, like not being able to listen until their pencils are lined up or saying the same sentences again and again. They may flap their arms to tell you they are happy or they may hurt themselves to tell you they are not.

The term Autism was first used by the Leo Kanner in 1943. Kanner described eleven children with inability to relate themselves in ordinary way to people and situations. Kanner used the term Autistic which means to "*escape from reality*", to describe the condition. Prior to Kanner's work, autistic people were given many labels including: childhood schizophrenia, feeble-minded, ideots, imbeciles, mentally retarded.

Kanner believed that those children come to the world with innate to form the usual, biological effective contact with people, just as other children come into the world with the innate physical or intellectual handicap. He described those children as having an excellent rote memory, delays in the acquisition of speech and language (including pronouns reveal, echolalia, and extreme literalness

and obsessive desire for the maintenance of sameness. People used to confuse Schizophrenia and Autism. Schizophrenia is a mental illness characterized by strange speech and abnormal behaviour and a decreased ability to understand reality.

Kanner (1943) differentiated both disorders in three areas:

- An extreme aloneness from the beginning of the life
- An attachment to objects
- Powerful desire for aloneness and sameness

For Kanner, Autism is inability to relate to themselves, it starts as extreme autistic aloneness, whenever possible, disregards, ignores, shuts out at anything that comes to the child from outside.

According to Diagnostic and Manual of Mental Disorders of American Psychiatric Association (2000), there are five specific autism diagnoses under pervasive developmental disorders (PDD) such as:

- ✓ **Autistic disorder:** it is a disorder which is characterized by deficit in reciprocal social communication, deficits in communication and language, restricted and repetitive behaviours and interests.
- ✓ **Asperger disorders:** it is known as milder form of autism. The major characteristic of this disorder is a lack of interest in social relationships or difficulties in forming a relationship with others. According to Ozonoff and Rogers, 2003, The language is not impaired and there is no impairment in cognitive functions
- ✓ **Rett disorder:** it is a condition found only in girls. Children who receive diagnosis usually show typical growth up to 5 or 6 months of age. They begin to use their interest in other over time.
- ✓ **Childhood disintegrative disorders:** it continues a period of typical growth in the child followed by loss of developmental skills, which eventually ends in severe cognitive deficits and other abilities.
- ✓ **Pervasive not otherwise specified**
- ✓ **Pervasive Developmental Disorder (PDD)** refers to a group of disorders which are characterized by delays in the development of socialization and communication skills.

➤ Causes of Autism

We know that there is no one cause of autism. Researchers believe that genetic and non-biological factors may influence the risk of having autism.

❖ **Genetic factors:**

Researchers believe that autism tends to run in families. Changes in certain genes increase the risk that a child will develop autism. If a parent carries one or more of these gene changes, they may get passed to a child (even if the parent does not have autism). Other times, these genetic changes arise spontaneously in an early embryo or the sperm and/or egg that combine to create the embryo. Current knowledge regarding ASD mostly comes from family and twins' studies.

❖ **Environmental risk factors**

Researchers believe that certain environmental influences may further increase or reduce autism risk in people who are genetically predisposed to the disorder. Importantly, the increase or decrease in risk appears to be small for any one of these risk factors. Exposure to environmental toxins, such as maternal exposure to memory during pregnancy, excessive use of antibiotics in children, household and environmental pesticides.

➤ **The characteristics of Autist**

Autism is looked through three criteria including impairment in communication, impairment in the use of non-verbal behaviours, restricted and stereotyped patterns of behaviours, interests and activities. The abnormal functioning in at least one of social interaction and language, with onset prior to age 3 can define autism but not limited to that.

- a. Qualitative impairment in social interaction, as manifested by at least two of the following:
 - Marked impairment in the use of multiple nonverbal behaviours such as eye to eye gaze, facial expression, body postures and gestures to regulate social interactions.
 - Failure to develop peer relationships appropriate to developmental level.
 - Lack of spontaneous seeking to share enjoyment, interests, or achievement with other people (lack of showing, bringing, or pointing out objects of interest).
 - Lack of social or emotional reciprocity.
- b. Qualitative impairment in communication as manifested by at least one of the following:
 - Delay or total lack of the development of spoken language (not accompanied by not to attempt to compensate through alternative modes of communication such as gestures or mime)
 - Individual with adequate speech, married impairment in the ability to initiate or sustain a conversation with others

- Stereotyped and repetitive use of language or idiosyncratic language.
 - Lack of varied, spontaneous make-believe play or social imitative play appropriate to developmental level.
- c. Restrictive repetitive and stereotyped patterns of interests, and activities as manifested by at least one of the following:
- Encompassing preoccupation with one or more stereotyped and restricted patterns of interest that is abnormal either in intensity of focus.
 - Apparently inflexible adherence to specific, non-functional routines or rituals.
 - Stereotyped and repetitive motor mannerism (hands of fingers flapping or twisting, or complex whole-body movement).



SELF-ASSESSMENT 8.2.1

1. Define the word autism
2. Discuss three angles through which autism is seen.
3. Describe characteristics of learners with autism.
4. Provides some labels given to autistic people according to Kanner's work
5. For DSM IV there are four types of autism, discuss.

8.2.2. Teaching strategies for learners with Autism



ACTIVITY 8.2.2

1. From your own thought, what are some of the services that should be given to learners with autism to help them in everyday lives?

Early educational intervention makes a positive difference in the life of an individual with autism. Early intervention services typically include a structured educational and behavioural modification strategies with related and specialized services. Those related and specialized services may include:

- Assistive technology and services
- School nursing services
- Parent counselling and training
- Nutrition services

- Artistic and cultural programs-art, music, and dance therapy
- Occupational therapy
- Speech and language therapy

Early interventions begin with the development of an individualized family service plan (is a plan for special services for young children with developmental delays, IFSP), which typically addresses needs in the areas of social skills, functional skills (dressing, toilet training, self-feeding), communication, and behaviour modification. No one program is applicable to all children with Autism, the strength and needs of each child must be considered in the development of specific educational plan.



➤ **Techniques of a structured educational approach**

Some of techniques of a structured educational approach include but not limited to:

- Use Task Analysis: very specific, tasks in sequential order.
- Always keep your language simple and concrete.
- Teach specific social rules/skills, such as turn-taking and social distance.
- Give fewer choices and avoid using sarcasm
- Avoid using idioms. “Put your thinking caps on”, “Open your ears” and “Zipper your lips” will leave a learner completely mystified and wondering how to do that.
- Give very clear choices and try not to leave choices open ended.
- Repeat instructions and checking understanding. Using short sentences to ensure clarity of instructions.
- Providing a very clear structure and a set daily routine including time for play.
- Providing warning of any impending change of routine, or switch of activity. Etc...



According to Bayat (2012) adaptations and modification of the environment and curriculum for autistic learners should be based on their sensory and behavioural needs. Early childhood special education and inclusive classrooms will benefit from arranging the environment based on the following guidelines:

- ❖ **Use of visuals in the classroom:** these are the objects and pictures that can be used in order to enhance communication with learner with autism. Pictures are symbols that represent specific objects, actions, concepts. Visual has become important element of a successful interventions for children with autism in Early Childhood Special Education and inclusive classrooms. Picture exchange communication system is an effective method of working with autism that enables them to communicate with peers and adults.
- ❖ **Specific physical arrangement of the classroom and home:** The environment should [provide messages in the regard where things are and what to be done. Visual should be used to labels, desks, drawers, and materials.
- ❖ **Cozy corner and sensory-oriented activities to support self-regulation:** Children with autism should have a cozy corner, contained refuge that has a calming effect for children. Pillows beanbags, and blankets should be available for children to calm down when they are having tantrum as a result of a sensory overload.
- ❖ **Providing daily and weekly schedules:** Children with Autism benefit from predictable routine. In daily schedule the adults give clear messages to children about plan of a day and what exactly will happen through the day.



SELF-ASSESSMENT 8.2.2

1. What are some specialized services available for children with autism?
2. Why should visuals be used in a classroom for learners with autism?



SKILLS LAB

1. Visit a special school and identify two learners, one is suspected to have Attention Deficit Hyperactivity Disorder and another one suspected to have autism. Spend four hours with both children. On three pages, describe the characteristics of each child and suggest strategies you could use to teach both learners and suggest some recommendations.



END OF UNIT ASSESSMENT

1. Mention four main approaches teachers can use to teach learners with ADHD.
2. Discuss ADHD subtypes and its characteristics
3. Discuss the interventional approaches for a learner with ADHD
4. What are the characteristics of an Autist? child ?
5. What is the role of early intervention for learners with autism?
6. Discuss three areas which characterize learners with autism?
7. Discuss the techniques of structured educational approaches which are used to teach learners with Autism?
8. What are the guidelines for supporting the learners with autism?

UNIT 9

GIFTED AND TALENTED LEARNERS

Key Unit Competence: Identify the characteristics and educational needs of Gifted and talented Learners



INTRODUCTORY ACTIVITY

Case study: Deborah

Deborah is a 9-year-old girl, intense, inquisitive, energetic, and imaginative P3 learner. When you talk to her you mark her potential for performing many things in unexpected way. She excels in school and enjoys finding solutions to problems independently. She loves science and enjoys researching topics and abstract tasks, especially in Sciences and Mathematics. She dislikes routine mathematics and may make careless computation errors, but she is always above average in her standardized mathematics tests. Deborah has few close friends though generally tolerated by her peers.

Tasks:

1. In small group, discuss the learning problems Deborah has.

9.1. Definition, causes and characteristics of gifted and talented learners



ACTIVITY 9.1

1. What is the difference between a gifted learner and a talented learner?
2. In your opinion, what are the key promoters of a gifted or talented behaviour?
3. Suppose that you have probably heard about a gifted/talented child, what do you think that differentiates them from others?
4. In your opinion, how can you describe a gifted or talented child?

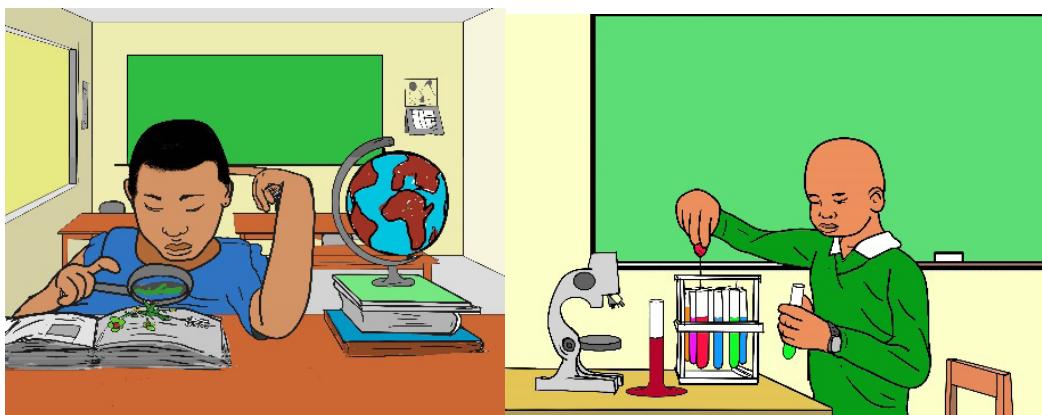
➤ **Definition of gifted and talented learners**

According to Karnes and Suzanne (1993), gifted and talented children and youth are those with outstanding talents and who perform or show their potential for performing at remarkably high levels of accomplishment when compared with others of their age, experience or environment.

They exhibit high performance capability in intellectual, creative and/or artistic areas, possess an unusual leadership capacity or excel in specific academic fields. They require services or activities not ordinarily provided by the schools.

Here are some differences for those Gifted and Talented learners:

- Gifted learners are those who have superior general ability in academic performance.
- Genius learners excel in almost all academic domains and with less effort.
- Talented learners are those who show signs of special aptitude or ability in specific areas of the arts, sciences, business, etc.



➤ **Causes of giftedness and talented ness**

Researchers indicate that genetic factors are known to contribute significantly to behavioural development, including intelligence and gifted performance. But also, environmental factors, families, schools and communities are also known to influence the development of giftedness.

Basing on this argument, giftedness is therefore the result of combined biological and environmental influences that is therefore the result of combined biological and environment influences that is nature and nurture. They further suggest that one's collection of genes sets limits of performance; the actual performance within those limits is determined by environment factors.

➤ Classification of learners who are gifted and talented

Children who are gifted and talented are a heterogeneous group. They are classified into six categories such as:

- *General intellectual ability:* Learners have excellent memories and ask many questions. They are able to grasp concepts, generalize, analyse or synthesize new ideas.
- *Specific academic aptitude:* Learners with specific aptitude are those who are high academic achievers, study purposefully and achieve high academic grades in their work.
- *Creative and productive thinking:* Creative and productive thinkers are those learners who develop or come with new ideas, projects and products (they may involve all spheres like science, medicine, politics or leadership).
- *Leadership ability:* Learners with leadership ability are those who typically display:
 - a. Well-developed social skills
 - b. Empathy
 - c. Ability to motivate others
 - d. Ability to keep others united
 - e. Effective communication skills
- *Visual and performing arts:* learners who are gifted in visual and performing arts are good in performances that please the eyes and the ears of their audience (include different arts like dancers, musicians, actors...)
- *Psychomotor ability:* Psychomotor means “high coordination of the mind and muscle for super performance” it is closely related to visual and performing arts since performance are required in both.

➤ Characteristics of gifted, genius and talented learners

- Learn new material faster, and at an earlier age, than age peers;
- Always remember what has been learned without making revision;
- Is able to deal with concepts that are too complex and abstract for age peers;
- Has a passionate interest in one or more topics, and would spend all available time learning more about it if possible;
- Does not need to look at the teacher to hear what is being said;
- Can operate on multiple brain channels simultaneously and process more than one task at a time.

- Fluent and flexible thinking
- Excellent thinking and reasoning



SELF-ASSESSMENT 9.1

1. Discuss three characteristics of gifted and talented learners
2. With clear examples, discuss six categories of gifted and talented learners
3. What are some of the environmental factors known to influence the development of giftedness?
4. How do Karnes and Suzanne (1993) define a gift or talented learner?

9.2. Effect and teaching approaches of gifted and talented learners



ACTIVITY 9.2

1. Discuss what you think are the best ways of teaching gifted and talented learners.

➤ Effects of a gifted and talented learners

Despite general being well adjusted, they experience some emotional and adjustment problems. They experience intra-psychic conflicts in classrooms because although they would like to excel academically, at the same time they are afraid of outperforming their mediocre or less performing classmates since this would lead to their rejection.

Learners who are gifted and talented often experience conflicts with their teachers and parents as a result of persistent inquisitiveness which poses a challenge to those who interact with them. In addition, their independence of mind, desires to pursue projects of their own, demand for stimulating materials, books pose a challenge to both parents and teachers.

➤ Strategies of accommodating gifted and talented learners

Learners who are gifted and talented are considered to require special education in the form of: differentiated teaching strategies, curriculum and services.

Learners who are gifted and talented are just like any others. They have basic needs like other learners and the teacher needs to be tolerant, loving, understanding, and flexible. Also, the teacher needs to remember that those learners are creative, competent, have broad range of interests and skills, and ready to learn. To help the child who is gifted and talented, the teacher therefore needs to:

- Recognize and accept the learner's special abilities
- Encourage the child to explore his fields of interests
- Help the learner to develop or enrich his social confidence
- Avoid imposing expectations and demands that are beyond the learner's level of ability
- Avoid having negative attitudes towards the learner
- Positively reinforce learners with SEN.

School management of the gifted and talented involves the provision of an educational programs that encourages:

- ❖ **Use of special classes:** Gifted children are removed from the regular classroom for special instruction, so they benefit from classes which are like resources rooms.
- ❖ **Ability grouping:** Can be defined as the practice of placing learners in groups according to their level of cognitive ability. Children who are good achievers are put together in one group for the purpose of providing differentiated learning experiences. Benefit of ability grouping include learning activities can be accelerated or enriched, it reduces boredom and frustration, develops creative and thinking skills among the learners. But also, this technic may lead to elitism in the class where learners who are gifted and talented may feel superior to others and this may de-motivate the weak ones.
- ❖ **Acceleration:** It is the practice of offering the standard curriculum to children who are gifted and talented at younger age than usual or covering the content in less time than as normally prescribed. Some forms of accelerations include early admission to school, grade skipping, telescoped programs.
- ❖ **Enrichment:** It refers to study, experience or activity which is above and beyond the normal curriculum followed by other children of the same age. The learners are given the opportunities to explore the subjects in-depth.
- ❖ **Curriculum diversification:** Considering the curriculum for these group of learners, one should consider the following: chronological age of the child, the current class of the child, the child's mental age.

- ❖ **Guiding and counselling:** Gifted and talented learners need special attention to be able to function normally in the society. Some supports are very crucial such as: intra and inter-personal relations, development of communication skills such as turn taking in conversations and dialogues, development of self-care skills.

Acceleration, accommodation, enrichment and modification are qualities of differentiated instructions of which should be used for the education for all exceptional children. The assessment guides the Individualized Education Plan (IEP). Specific curricula activities and strategies are highly recommended for all learner who are gifted.



SELF-ASSESSMENT 9.2

1. What do you understand by the terms?
 - a. Acceleration b. Ability grouping
2. Discuss the effect of being genius or talented in the classroom



SKILLS LAB

1. Visit a primary school and identify a child who is expected to be gifted and talented. Take time and spend three hours with the child. Write down all the characteristics of the child and suggest strategies you could use to support that child improve her/ his studies.



END OF UNIT ASSESSMENT

1. Who are the children referred to as gifted and talented?
2. Discuss the different traits of gifted and talents learners
3. What are the teachers' attitudes towards the gifted and talented learners ?
4. What strategies should schools use for proper management of gifted and talented learners

UNIT 10

LEARNERS WITH EMOTIONAL AND BEHAVIOURAL DISORDERS (EBD)

Key Unit Competence: Explain the characteristics and Special Educational Needs of learners with Emotional and Behavioural Disorders (EBD) and use appropriate teaching/learning approaches



INTRODUCTORY ACTIVITY

MUTETE is a young girl of seven years old, she has 3 siblings. She was born in Rubavu district but at 4 years of age she became an orphan of both parents due to an accident. After the death of her parents she was taken to start school out her uncle's home. But as the time goes by it was not easy for MUTETE to study and stay in class like other learners because she had fear of unexpected things and often cried in class, failed to obey teacher's instructions, and feeling distressed apparently. During the end of year exams, MUTETE shouted and ran out of the examination room. The Head teacher and her elder brother decided to take her to the psychologist for assessment. The assessment was well done and she was diagnosed with EBD. With the advice from the psychologist, the family made a plan in order to help MUTETE improve her situation slowly. MUTETE now attends a regular school and succeeds in class and attends regularly as other learners.

Questions:

In your groups:

1. According to the case study, what was the source of MUTETE's problems
2. Discuss MUTETE's problem in this case study?
3. What intervention plan was made for MUTETE?

10.1. Definition and causes of EBD



ACTIVITY 10.1

Using your resources:

1. How can you explain Emotional and Behavioural Disorder (EBD)?

➤ **Definition of EBD**

Emotional and Behavioural disorder (EBD) is a disability that is characterized by behavioural or emotional responses in school programmes different from appropriate age, culture, or ethnic norms that affect education performance, including academic, social, vocational and personal skills.

EBD is a broad term used commonly in educational settings, to group a range of more specific difficulties experienced by learners and adolescents.

Both the general definitions and the concrete diagnosis of EBD may be controversial, as the observed behaviour may depend on many factors. Behavioural disorders, also known as conduct disorders, are one of the most common forms of psychopathology among learners and young adults, and are the most frequently cited reason for referral to mental health services. In Rwanda, these services are available.

The people with Emotional and Behavioural Disorder (EBD) are described using different terms including but not limited to: emotionally disturbed, behaviourally disordered, emotionally conflicted, socially handicapped, personally impaired, socially impaired, and many others.

There are four dimensions of EBD which are common to each of the Emotion and Behaviour disorders:

- The frequency at which the behaviour occurs
- The frequency of the behaviours
- The duration of the behaviours
- Age-appropriateness of the behaviours.

➤ **Causes of Emotional and Behavioural Disorders**

Even though there no known and exact causes of Emotional and Behavioural Disorders. Researchers believe that biological, developmental and environmental factors with some preventive measures are considered as leading factors of EBD in young children.

❖ Biological causes

Chemical imbalances in the brain and body can make managing emotions a challenge. Here are some examples of biological condition that may lead to EBD:

- Prenatal exposure to drugs or alcohol
- A physical illness or disability
- An undernourished or malnourished lifestyle
- Brain damage
- Hereditary factors

❖ Environmental factors

This is the conditions a person's daily life in the community. There are so many element that have been correlated to emotional disturbance including family income below the poverty level, stress in the family unit because of divorce or some other emotional upset; inconsistent rules or expectations as well as inconsistent and unhealthy discipline, parents have a lack of interest or concern for the teen, which leads to a lack of supervision or neglect; family members are poor role models, perhaps violent, perhaps getting in trouble with the law; parents or siblings physically abuse the teen; there is an overall low rate of positive interactions and high rate of negative interactions in the family; the family has a poor attitude toward school or education.

❖ Developmental factors

Development refers to the lifelong process of changing and maturing. Every stage of life has its tasks that must be completed successfully for mental health and life satisfaction. When a child's development is disrupted and problematic, there can be negative consequences for mental health and cognitive growth. There is no single known factor that may cause Emotional Behavioural disorder

Here are some examples of developmental causes:

- Attachment problem: it may be either lack of positive attachment to the primary caregiver or over attachment leading to clinginess and difficulties separating from the caregiver
- A failure to develop trust during infancy and early toddlerhood, resulting in fear and mistrust
- Inability to experience some autonomy and instead internalize a sense of shame for exploring
- Opposed attempts to show initiative and instead made to feel guilty for wanting to try new things
- Failure to experience a sense of competence, which leads to feelings of inferiority, during the elementary years.



SELF-ASSESSMENT 10.1

1. Explain what is by EBD?
2. What is the most known disorder of EBD?
3. Explain environmental factors of EBD?
4. What do you understand by developmental factors of EBD?

10.2. Classifications and characteristics of learners with EBD



ACTIVITY 10.2

Using your resources:

1. Hearing the meaning of Emotional and Behavioural Disorder, it is a broad term, what do you think about it?
2. Describe some criteria that may help to confirm EBD?

Emotional Behavioural Disorder is classified into three groups:

- Conduct disorders
- Emotional disorders
- Personality disorders

❖ Conduct disorder

The diagnosis of conduct disorder is based on antisocial behaviour, and it says little about the child's inner life motives, and disabilities. The disorder is classified by: aggressive and overt versus convert.



Examples of undesirable behaviours exhibited are anger, attention seeking and boisterousness bossiness, disobedience, impatience, irresponsibility, jealousy and temper tantrums.

❖ Emotional disturbances

It is a condition exhibiting one or more of the following characteristics over a long period of time and to a marked degree that adversely affects a child's educational performance:

- Inability to learn that cannot be explained by intellectual, sensory or health factors;
- Inability to build or maintain satisfactory interpersonal relationships with peers and teachers
- Inappropriate types of behaviour or feelings under normal circumstances
- A general pervasive mood of unhappiness or depression
- A tendency to develop physical symptoms or fears associated with personal or school problems.

Characteristics of Emotionally Disturbed Child

Unusual rage or anger

Gets irritated fast

Unhappy/depressed
(Withdraw)

Hyperactivity

Immaturity

Anti-social



❖ Personality disorders

Personality disorder refers to a disorder enduring pattern of inner experience and behaviour that deviates markedly from the expectations of the individual's culture, that is pervasive and flexible, has an onset in adolescent or early adulthood, is stable over time and lead to distress or impairment.

➤ Characteristic of learner with EBD

Learners with emotional or behavioural disorders are characterized primary by behaviour that falls significantly beyond the norms of their cultural and age group on two dimensions:

- Externalization and
- Internalising.

Both patterns of abnormal behaviours have adverse effects on children's academic achievement and social relationship.

- **Externalizing behaviours** are as under-controlled disorders which are characterized by aggressiveness, temper tantrums, acting out and noncompliant behaviours.
- **Internalizing behaviours** sometimes referred to as "over controlled disorders" which are characterized by social withdrawal, depression and anxiety. Learners with internalization are unlikely to be identified by the teachers and families because they do not create the chaos that are commonly associated with learners with externalizing behaviours.

Learners with EBD portray:

- Impulsivity and, hyperactivity, or "out of control" behaviours
- Episodes of extreme irritability, anger and outbursts.
- Moods that change quickly and seemingly without reason
- Poor grades at school due to lack of work completion and behavioural problems
- Sadness, withdrawal, decreased energy level.
- Inflexibility and low tolerance for frustration.
- Loneliness
- Low attention span
- Inability to concentrate



SELF-ASSESSMENT 10.2

1. Discuss the classification of Emotional and Behavioural disorder
2. Differentiate conduct disorder from Personality disorders and emotional disorders.

10.3. Teaching approaches for learners with Emotional and Behavioural Disorders



ACTIVITY 10.3

1. After having some information about EBD, how can you educationally help learners who have Emotional and Behavioural disorder?

The following interventional measures have been known to manage EBD learners:

- Implementation of behaviour modification strategies
- Effective behaviour management procedures put in place,
- Appropriate routines for classroom procedures
- Effective instructional delivery and a variety of relevant instructional activities.
- Clear hierarchical reprimand or consequence system. For example, non-verbal warning, verbal warning, parent conference, suspension and referral.

The management of learners with EBD require a good and flexible teacher. There are some measures that help teachers to manage learners with EBD. Those measures are classified into three categories:

- a. **Physical environment interventions:** Positive behavioural support include providing effective academic content and instructional to students with emotional disorders.

Researchers show that student EBD can benefit from certain teaching strategies. Five of them include effective instructional cycles, teaching mnemonics, self-monitoring strategies, curriculum-based measurement, and content enhancements,

The components of effective instructional cycle include:

- Beginning each lesson with a statement of goals, with a review of previous, prerequisite learning
- Presenting new material in small steps, with students practice following each step
- Providing active and sufficient practice for all students.
- Asking questions, checking frequently for student understanding and obtaining responses from all students.
- Providing systematic feedback and corrections to students.
- Providing explicit instructions and practice for seatwork activities and actively monitoring students during those activities.
- Continuing to provide practice until students are independent and confident.

b. Academic and instructional interventions

In this strategies PBS (Positive Behavioural Support) is the most used and very crucial. Positive behavioural support is the application of positive behaviour interventions and systems to achieve socially important behaviour changes. It can be used in preschool setting. Working with parents to provide positive support at home can directly foster school readiness and behavioural health in young children.

These strategies can be used:

- ❖ **School wide positive behaviour support:** it can be used in inclusive school to manage the children with disabilities' behaviours. The school wide positive behaviour has three components:
 - Universal support,
 - Group support
 - Individual support
- ❖ **Class wide strategy** promote social competence in order to create a positive classroom climate there are some strategies to be adapted in inclusive and special education.
 - Use close supervision and monitoring of all children at all times by scanning, moving frequently, initiating
 - Establish and teach classroom rules, which detail expected behaviours at the beginning of the year, and systematically teach the rules to children throughout the year.
 - Provide opportunities for children to respond by questioning, providing visual and verbs prompts.

- Increase use of contingent and specific praise by frequently acknowledging the children's appropriate behaviour in a descriptive way
- Provide feedback and help children learn the correct responses in a timely fashion.

c. Behavioural and cognitive-behavioural interventions

It begins with assessment of child's behaviour. Functional Behavioural assessment (FBA) is the process that determines why a child engages a specific behaviour and how the child's behaviour relates to his or her environment. It gathers data from multiple sources to identify the antecedent and consequence event that predict and maintain problem behaviours.

Functional Behavioural assessment (FBA)

- Analysis of a child's behaviour
- The condition that might contribute to the child's behaviours
- Forming the hypothesis regarding the reason for behaviours
- Identifying consequences that might contribute to the prevention, or reoccurrence of, the behaviour in future.



SELF-ASSESSMENT 10.3

1. What is the role of Functional Behavioral Assessment?
2. Discuss the school wide positive behavior



SKILLS LAB

1. Visit a secondary school and identify a student who is suspected to have an emotional behavioral disorder. Spend two hours with the student. Write down all the characteristics of the child and suggest strategies to be used to help the child improve her/ his studies and provide some recommendations (in schools and teacher, parents).



END OF UNIT ASSESSMENT

1. Explain the classification of EBD
2. Discuss the characteristic of learners with EBD
3. What are three interventional approaches for a learner with EBD?

UNIT 11

CHILDREN WHO ARE EDUCATIONALLY VULNERABLE

Key Unit Competence: Identify all other categories of learners with different special educational needs, specify their characteristics and impact on learning and teaching



INTRODUCTORY ACTIVITY

Case study: Muhire

Muhire is a 11 years old boy. Since he was born, he did not know his father, his mother died of breast cancer when he was 10 years. After the death of his mother Muhire was taken to be cared for by his elder brother who is his only sibling. Muhire's brother earned an insufficient salary to satisfy all their needs even though Muhire was attending a fee free Primary school, but there were other needs that his brother was not able to satisfy. At 13 years Muhire was enrolled into a secondary school. As Muhire had passion for school he walked 12 km to school without school fees to pay but when he arrived at the school, he was sent back home. Muhire's sister in law (wife to his brother) was unhappy to see Muhire coming to request from them money for school fees and other school materials and not ready to support him. Muhire stayed home for 6 months. Later a brilliant idea come to his mind, he went to nearest sector office to raise his problems and leaders of the sector promised him to pay for his secondary and university studies as is the government policy to support vulnerable. Muhire went back to school and is now at his last year as a medical student.

Tasks:

In groups

1. What problems did Muhire encounter after his primary education?
2. How was Muhire's problem solved?

11.1. Definition, categories and characteristics of children who are educationally vulnerable



ACTIVITY 11.1

1. Who are children living under difficult circumstances?
2. According to you, what are some of the problems that may hinder children from attending school?

Children are said to be vulnerable when their basic needs for food, shelter, education, medical care, or protection and security are not met. This has different factors including political, socio-cultural and economic and health difficulties. Such children are at great risk of suffering malnutrition, disease and possible death. Unless their own situation changes their conditions of gross disadvantages will extend to their own children who may suffer even greater misery and suffering.

❖ Categories of children who are educationally vulnerable

Children living under especially difficult circumstances are classified into twelve categories.

- a. **Street children:** They are children who live or spend significant amount of time on the streets of urban area to fend for themselves and/or their families. Also include children who are inadequately protected, supervised and cared for by responsible adults. There two main categories of street children:
 - ❖ Children of streets: children of the streets are boys and girls who see the street as their home. They may still have their families ties but seek shelter, food and a sense of family among their companions on the streets or they may have completely broken ties with their families and literally live on streets. Often, they have been abandoned by their parents, are orphans or runaways from neglected or abusive families.
 - ❖ Children on the streets: are those who still have family connections. They live at home, often in more than shacks, sometimes even attend school, but are sent to street by parents or go of their own accord to supplement the family income.



Street children smoking cigarette

b. Abused and neglected children:

child abuse is any act or intention to treat children badly by directly or indirectly hurting them. It can be physical and or psychological violence. On the hand, child neglect is rendering no care to children by parents or caregivers. It is also a failure to provide for the daily needs, hence affecting the children's social, emotional and psychological status. Other form of abuse and neglected include: lack of affection, systematic scolding and withdraw from

the school. Forced marriages may also interfere with their education. S/he may be reluctant to say something because s/he may want to protect that person or is afraid of what they will do if s/he speaks up. Sexually abused children can be defined as those who have had sexual contacts or interactions between them and other or more knowledgeable people.



c. Children who are traumatized:

a traumatic event involves a single experience, or an enduring or repeating event that may completely overwhelm a child's ability to cope or integrate the ideas and emotions involved with that experience.

d. Child mothers: Young girls who become pregnant and give birth at early age hence assume the role of being a mother.

e. Child soldiers: A child associated with an armed force or armed group refers to any person below 18 years of age who is, or who has been, recruited or used by an armed force or armed group in any capacity, including but not limited to children, boys and girls, used as fighters, cooks, porters, spies or for sexual purposes. It does not refer to child who is taking, or has taken, a direct part in hostilities. Their enormous tasks undertaken by these children affects theirs learning and emotional wellbeing.



Child soldiers

f. Children Heading

Families: Children who take up responsibilities of parents as result of incapacitation or even death of their parents. This could be due to wars, tribal clashes, displacement and others natural calamities.

- g. Child labourer:** It refers to work that is mentally, physically, socially or morally dangerous and harmful to children, and interferes with their schooling by depriving them of opportunities to attend the school. Child labour is often defined as work that deprives children of their childhood, their potentials and their dignity, and that is harmful to physical and mental development. Term “child labour” is also referred to as employment of children below adult age, which is considered illegal by law and custom. But the stipulated age varies from country to country and government to movement.



Children are in different inappropriate activities

- h. Children who are refugees and displaced:** Those are children who forces to leave their homes, often travelling the long distance to escape enemy, fire and become the most vulnerable victims of violence, disease, malnutrition and death.

- i. **Homeless and unaccompanied children:** Children who are not in the physical custody of a parent or guardian.
- j. **Orphaned children:** Children who are bereaved for both mother and father hence exposed to many challenges such as lack of basic needs, that is food, shelter, and clothing. The death of both parents leads to deprivation and feeling of insecurity. Their learning and development will be affected since they have to fend themselves most of the time.
- k. **Children affected and infected by HIV/AIDS:** Are children who are infected and those from families affected by HIV/AIDS may be stigmatized and suffer discrimination. Lossing on of their parents or family members affect their emotions, physical and education. The lives of children who may not have HIV themselves are affected when family members have HIV and AIDS. Families face increased poverty and stress when adults are too sick to continue with paid employment or farm their land. Mothers who are ill find it difficult to take care for young children and young children may end up caring for parents or young siblings.
- l. Children living in family conflicts.

❖ **Characteristics of children who are educationally vulnerable**

The characteristics are displayed in four ways:

- Physical characteristics:
- Cognitive characteristics
- Behavioural characteristics
- Socio-emotional characteristics

a. Physical characteristics

Those are physical event that may cause a child not to attend the class as expected including: fractures, bruise and welts, burns and scalds, head or brain injuries, human bite marks.

b. Cognitive characteristics

They are drive and or mind-set that push a learner to have a repeated absent in school like Development delays in cognitive abilities, distractibility and poor attention span, unrealistic expectation in life.

c. Behavioural characteristics

In behavioural characteristics include drug and alcohol misuse, abusive behaviour and language, poor memory and concentration, suicidal behavioural, truancy and running away from the school, etc.

d. Socio-emotional characteristics

Some characteristics are: self-harming behaviours such as head-banging, persistent rocking, disturbed toileting behaviours, excessive hunger drives, short attention span, excessive hunger drive, bizarre eating behaviours, disrupted sleep behaviours.



SELF-ASSESSMENT 11.1

1. What are some of the factors that make children vulnerable and what are the risks?
2. Discuss characteristics of children who are educationally vulnerable?
3. Explain some examples of categories of children who are educationally vulnerable.

11.2. Intervention strategies for children who are educationally vulnerable



ACTIVITY 11.2

1. Suppose that you have children who are educationally vulnerable in your class, how can you help them out of their vulnerability?

Children with different problems have the right to protection and participation like all other children. Learners who are educationally vulnerable should be helped in different ways at school by teachers or any others.

It is important for a teacher and others who work with those learners to bear in mind that all children may not present the same challenges due to their individual experiences.

Measures that teachers can keep in when taking care of vulnerable children:

- Exercise caution in assigning homework
- Be conscious of educational gaps of learners
- Be on the alert for mental health problems;
- Be attentive to other matters.
- Be vigilant of children who are streetwise or manipulative.

The way children are helped will depend on different factors including families, parenting styles, environmental, literacy levels and economic status of the parents among other.

The interventions and support are categorized into the following:

- a. **Crisis interventions:** This is to offer short term or immediate support to someone who experience the event that produces mental, physical and emotional difficulties. Crisis happens to everyone and intervention may take many forms. They are aimed at helping people to individually cope with crisis in ways that it reduces the negative psychological, physical, physiological and behavioural effects of trauma on that person and his/her environment.
- b. **Improved family interventions:** Family play a very crucial role in a child's development and growth. A child learns much from a good family like social role through interaction. This foster a sense of psychological and emotional security necessary for the child's growth and development. Families are encouraged to create a conductive family environment for health interactions.
- c. **Mobilization of the community:** Various professionals, CSOs (civil society organization) and NGO are mobilized to contribute in different ways for example donations, trainings through workshops and seminars, availability of communication and transport)
- d. **Government policy and interventions:** The government has the obligation to organize and have relevant policies in place to support vulnerable children.



SELF-ASSESSMENT 11.2

1. Differentiate the Improved family intervention from crisis intervention



SKILLS LAB

In your home community, identify a child who does not attend school. Spend around two hours with the child. On two pages, discuss her/his condition and locate the child in categories of children who are educationally vulnerable, find out the effect of the current situation and then propose the educational interventions for this child



END OF UNIT ASSESSMENT

- a. Who is a vulnerable child ?
- b. What some of the characteristics of learners who are educationally vulnerable in the following areas.
 - Physical
 - Cognitive
 - Behavioural
 - Socio-emotional
- c. Discuss strategies to help children who are educationally vulnerable.
- d. Identify the categories of learners who are educationally vulnerable
- e. What can teachers do to help children who are educationally vulnerable ?

UNIT 12

INTERMEDIATE RWANDAN SIGN LANGUAGE AND DEAF EDUCATION

Key Unit Competence: Interpret and use intermediate Rwandan sign language



INTRODUCTORY ACTIVITY

Read the following text and answer the questions that follow:

Ishimwe became deaf at the age of 5 as a result of meningitis. She could not communicate using Sign Language because her vocabulary was very limited. She could not express herself and it was extremely difficult for her to survive as she had to live with her siblings, parents and peers who had no knowledge in Sign Language. With the help of her teacher who was trained in Sign Language, Ishimwe started to learn simple vocabularies. She can now ask for food, greet people, ask for help, count, etc. with confidence. As she progresses in school, she becomes fluent in Sign Language. She can now construct meaningful sentences using Sign Language grammar. Though Sign Language grammar is different from English grammar, her peers and teachers are able to understand what she says and write. Ishimwe is a smart learner, bright and now ready to sit for national exam. He is confident that he will pass the exam with excellency.

Questions:

1. Which areas did Ishimwe encounter difficulties after she became deaf?
2. Why do you think Sign Language grammar is different from English grammar?

12.1. Sign Language vocabularies



ACTIVITY 12.1

Sign Language vocabularies

1. How would you sign number “ 1 , 2,3” in Sign Language?
2. How do you think we should sign the following words: Farther, mother, baby?
3. How would you sign” Good Morning in Sign Language?
4. If you want food, how would you sign” Cassava, chicken in Sign Language?
5. If you are attacked by an animal, how would you sign: “Animal, Giraffe”?
6. You attend a conference and you introduce yourself and have to say that you are from Rwanda. How would you sign it?
7. You are sick, and you want to go to the hospital, how would you sign the words” Hospital, doctor”?

❖ Numbers in Rwandan sign language

Vocabularies related to sign language of numbers and their meaning

vocabularies	Meaning
Zero 	Sign the letter O
One 	Hold up the right index finger palm facing you

Two



Hold up the index and middle finger, palm facing you.

Three



Hold up the middle, ring and little finger palm facing you.

Four



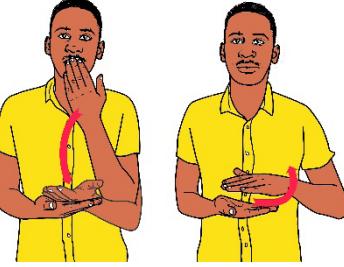
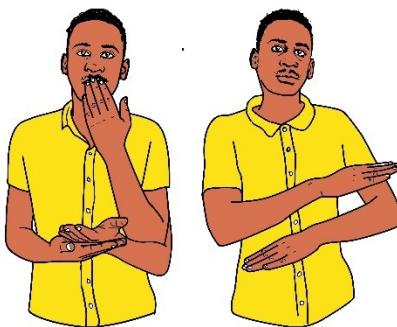
Hold up the four separated fingers, palm facing you.

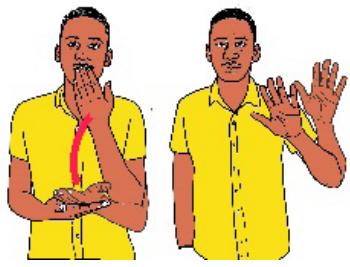
Five



Hold up the right hand, the palm facing you.

Greetings related vocabularies

Vocabularies	Meaning
Good morning	<p>i. Take left hand in front of chest, take right hand from chin and overlap it on the left hand then take the right hand behind the left hand and turn it on the front of your face</p> 
Good afternoon	<p>i. Take left hand in front of chest, take right hand from chin and overlap it on the left hand then take the right hand (finger down) and put on the elbow of the left hand which is in front of the face</p> 
Good evening	<p>ii. Take the right hand (finger down) and put on the elbow of the left hand which is bent slowly on the right side</p> 

<p>Good bye</p> 	<p>Take left hand in front of chest, take right hand from chin and overlap it on the left hand and move the right hand</p> <p>Signing: Goodbye is the same as the traditional gesture for the word. Open your palm, folding down your fingers, and then open your palm again. Figure: Bye Bye inBaby Sign Language. Usage: Goodbye is a good initial sign that you can use with baby and friends.</p>
<p>Hello/Hi</p> 	<p>Take right hand and put fingers on the head and move it (like soldiers)</p>
<p>Good night</p> 	<p>Take left hand in front of chest, take right hand from chin and overlap it on left hand and cross over two hands in front of face</p>
<p>Nice to meet you/nice to see you</p> 	<p>Take two hands on the chest and move twice and put two fingers on the eyes, and point index finger to the person</p>

See you tomorrow



- i. put two fingers on the eyes and point index finger to the person.
- ii. Pointing the index finger at the check and turn the hand forward and downward from the wrist.

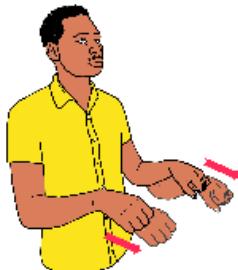
❖ Family related vocabularies

Vocabularies	Meaning
Family 	<ol style="list-style-type: none">i. Join the index fingers and thumbs of the 'F' hands and place them close to your chest.ii. Draw them apart in circular movement bringing them together at little finger edges.
Woman 	<ol style="list-style-type: none">i. Place the right "S" hand on each breast alternately
Father 	<ol style="list-style-type: none">i. Pull the chin with the thumb and index finger

Mother	<p>i. Sign women (ii) place the back of cupped right hand in front of you, with the fingers point up. (iii) Turn the hand over so that the fingers point downwards.</p>
Grandfather	<p>i. Sign father ii. Place the right S hand or the chin palm facing left. iii. Move the forwards and downwards shaking your hand slightly as you do so.</p>
Grandmother	<p>i. Sign women ii. Place the right S hand or the chin palm facing left. iii. Move the forwards and downwards shaking your hand slightly as you do so.</p>

❖ Food and drink related vocabularies

Vocabulary	Meaning
Mongo	<p>i. Place the A hand closed to the mouth. ii. Move the hand up and down from the wrist.</p>

Chapatti

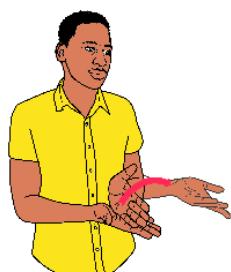
- i. Move both the downward facing S hand back and forth from the wrist. Repeat the movement several times.

Meat

- i. Place the S hand (palm down) in front of the mouth.
- ii. Then pull it sharply away from the mouth.

Water

- i. One open hand faces downwards with the fingers loosely apart
- ii. Shake the hand gently in horizontal up and down movement (first thumb side down and fingers side down and the thumb side up).

Cassava

- i. Place the little finger edge of the right hand, on the thumb edge of the left hand pointing in the front
- ii. Turn the right hand downwards to the left.

Eat	i. Make the sign for eat by taking your strong hand, with the tip of your thumb touching the tips of your fingers and tapping it on your mouth
Drink	i. With your hand in the shape of "C", bring your hand to your lips as if you are holding a glass and taking a drink

❖ Animals related vocabularies

Vocabulary	Meaning
Animal	<p>i. Play claw shaped hands on your chest and stroke in an outward direction.</p> <p>ii. The fingertips should touch the chest</p>
Sheep	<p>i. Place B hands on either side of the head. Then turn hands down in an inverted B</p>

Rabbit



- i. Place the open hands, palms facing outwards on either side of the head and twitch your nose.

Chicken



- i. Place the closed right hand on your mouth with the joined thumb and index finger pointing in front.
- ii. Move the right hand forward in quick, short thrust

Giraffe



- i. Place the finger tips on the C hand around the base of the neck.
- ii. Move the hand upwards along the neck and above the head.

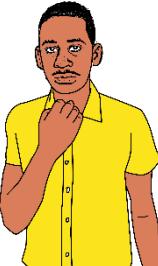
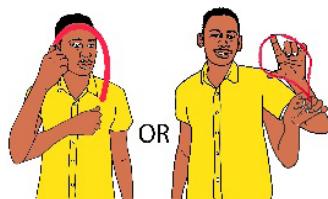
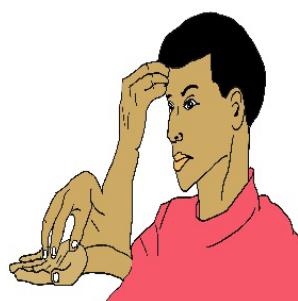
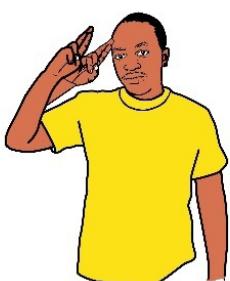
Countries related vocabularies

Country



- i. The C hand moves in a circle on your forearm

Rwanda	i. Close fingers of both hands and bite them into chest two times.
Kenya	i. Make a circular motion with the K hand
England	i. Place the left palm in front of you, the palm facing down and the fingers pointing to the right clasp the right hand around it. Move the joined hands back and forth twice.
Uganda	i. Place the extended right thumb and index finger on the left palm and tap twice.

<p>Europe</p> 	<p>i. Move the E hand in circular direction.</p>
<p>Africa</p>  <p>OR</p>	<p>i. Move inwards facing A hand in a clockwise direction in front of your face. OR i. Bring the tips of the right middle finger and thumb together and trace the map of Africa.</p>
<p>Education related vocabularies</p>	
<p>Learn</p> 	<p>i. Place left hand in the chest and pick with right hand fingers into left hand and put them in the front face</p>
<p>Remember</p> 	<p>i. Tap the sides of the head with R hand.</p>

<p>Know</p> 	<ul style="list-style-type: none"> i. Tap the side of the head with the fingertips several times.
<p>Book</p> 	<ul style="list-style-type: none"> i. Join the hands palms to palm and the fingers pointing outwards ii. open hands till flat(with the little finger edges of the palms touching) iii. Repeat the sign twice
<p>Paper</p> 	<ul style="list-style-type: none"> i. Move the open hand(palm up) and down in the flapping movement.
<p>Ruler</p> 	<ul style="list-style-type: none"> i. Place the left L hand in front of you ii. With the right index finger trace a line along the inner edge of the left index finger hand.

Health related vocabularies

Operation



- i. place the little finger edge of the right hand, with the fingers pointing up, just below your chest
- ii. move the hand down

Nurse



- i. Place the little finger edge of the right hand (with the finger pointing left) in the centre of the head.

Injection



- i. Place the right hand near

Hospital



- i. With the right H hand make a cross on the upper arm.

Doctor



- i. Tap the left arm with the downward facing right D hand



SELF-ASSESSMENT 12.1

1. How would you sign the following words:
 - Doctor, Hospital, Book, Remember, Uganda, Rabbit, Water, Aunt

12.2. Sign language grammar rules



ACTIVITY 12.2

Sign Language grammar rules.

1. What do you understand by the word “grammar”?
2. Sign Language grammar is different from English Grammar. Give an example that can explain this statement.

The ten grammatical rules in Sign Language

Grammar in any language is a set of rules about how that language may be used. These rules guide users in the correct speaking or signing of a language. Just like most other languages, Sign Language has a set of rules that it follows when being signed. A tool you can use to remember the rules is “TRIPSTONCL”, you have probably heard about it, and it goes like this:

1. Topic/Comment
2. Rhetorical
3. Information Seeking
4. Pronominalization
5. Simple Yes/No
6. Tense With Time

7. Ordering of Simple Sentences
8. Negation
9. Conditional
10. Long Yes/No

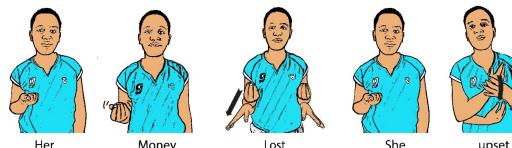
Below are the definitions of each grammatical rule, and an example of each written in Sign Language grammar and then put into English grammar.

- 1. Topic/Comment:** In a simple topic/comment sentence, the topic is described first, followed by the comment.

Example: HER MONEY LOST, SHE UPSET

English: She's upset that she lost her money

The topic was described first (her money was lost) and then the comment followed (she was upset).

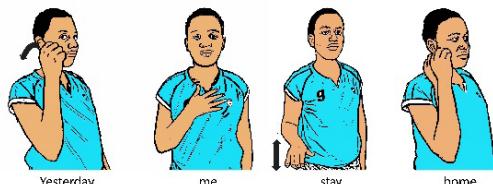


- 2. Tense with Time:** The time sign is placed at the beginning or near the beginning of a sentences.

Example: YESTERDAY, ME STAY HOME

English: I stayed home yesterday.

The time sign was “yesterday” and was located near the beginning of the sentence.



- 3. Simple Yes/No:** Short sentences that ask a yes/no question. The order of the signs varies.

Example: EXERCISE YOU WANT YOU? with eyebrows raised

English: Do you want to exercise?

The sentence given was short and the answer would be a yes or a no; the order of the signs could be moved around as well and mean the same thing.



- 4. Long Yes/No :** Long yes/no questions, sometimes they use a topic/comment format.

Example: *CAT BLACK TREE CLIMB, YOUR? with eyebrows raised*

English: *Is that black cat climbing the tree yours?*

The question was longer than that of a simple yes/no; the topic was described before the comment (which was the “your” part).



- 5. Information Seeking:** Simple questions that ask for information. They can have variable sentence structures, and rely sometimes on non-manual signals to distinguish them from a declarative sentence.

Example: *OLD++ YOU? with eyebrows squeezed*

English: *How old are you?*

The question was short and simple, the sentence structure doesn't really have much to change though. Normally, non-manuals would be used in all three question situations.



- 6. Pronominalization :** Pronouns are indicated by pointing to either a person or thing that is present, or a place in the signing space that is used as a referent point for a person or thing. Pointing is mostly done with the index finger, but eye gazing and other handshapes are sometimes used.

Example: *MY BROTHER VISIT-ME*

English: *My brother is visiting me.*

In this case, the pronominalization was when "he" was used; you could either be pointing at the brother or a spot in your signing space to refer to as "he".

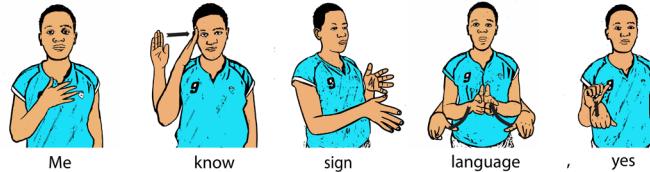


7. **Rhetorical:** In a rhetorical question, the signer asks a question and then answers it.

Example: ME KNOW SL? YES.

English: I know SL.

The signer asked his or her question, and then answered it; by doing so, we knew he or she knows SL.



8. **Ordering of Simple Sentences:** In simple sentences, the verb can be placed before or after the object of the sentence.

Example: GAME ME PLAY

English: I'm playing a game.

The sentence was short and simple, and we were allowed to move around the verb and not have it change the sentence.

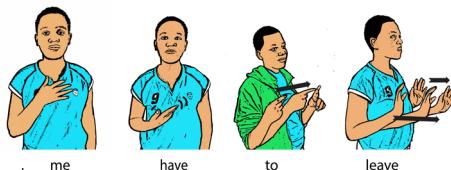
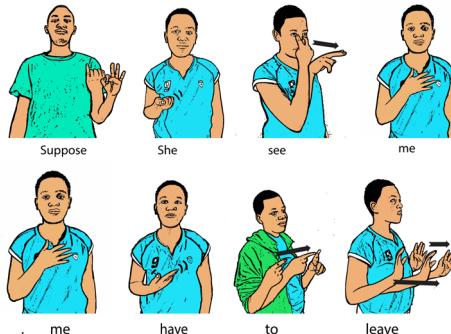


9. **Conditional:** In a conditional sentence, the condition is described first, then the outcome of the condition is described.

Example: SUPPOSE SHE SEE ME, ME HAVE-TO LEAVE

English: I will have to leave if she sees me.

In most conditional statements, the word “suppose” is used; the condition was said first (suppose she sees me), and then the outcome came afterward (I'll have to leave).

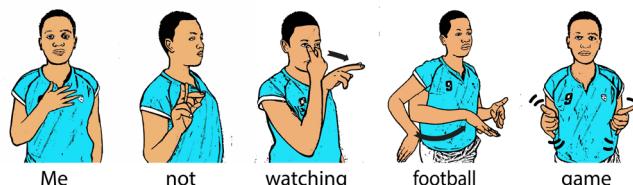


10. Negation: You can negate a thought by placing a negative sign before the verb or by first describing a topic and then signing the appropriate negative sign, or by giving a negative head shake.

Example: ME NOT WATCH FOOTBALL GAME.

English: I'm not watching the football game.

In this case, the word “not” was the negation portion of the sentence, making the sentence negative.



SELF-ASSESSMENT 12.2

Give the correct sentence and its sign language

1. My brother visit-me
2. Yesterday, me stay home
3. Exercise you want you?

12.3. Approach of teaching and learning for deaf and hard of hearing learners



ACTIVITY 12.3

- Teaching deaf require a particular method and techniques.
Discuss

❖ Approach used in education of deaf children

Before putting into action any kind of educational approach it is better to firstly assess the severity of the hearing loss. After, you can pick a method for each individual child. There are three primary communication methods used in education of deaf children. These are:

- Oral/aural:**An approach to deaf education that emphasizes auditory training, articulation ability and lip-reading.
- Total communication:** A method of interacting with individuals with language impairments using a combination of spoken language and signs, which includes sign language, voice, finger-spelling, lip-reading, amplification, writing, gesture and visual imagery (pictures).
- Bilingual/bicultural (bi-bi):**This is a philosophy of teaching that recognizes the authenticity and importance of both hearing and Deaf cultures, and that incorporates elements of both in the classroom.

❖ Techniques that are used to help the child with a particular method

In these methods there may be techniques that are used to help the child with a particular method, such as:

- Cued Speech:**A manual used by some deaf children and their teachers/ parents, that uses hand shapes near the mouth to help make lip-reading easier.
- Lip-reading (Speech-reading):**Decoding the language of a speaker by paying close attention to the face and mouth, without being able to hear the speaker.



SELF-ASSESSMENT 12.3

- Explain trees approaches used to teach deaf learners?
- Discuss on at least 2 techniques of teaching deaf learners



SKILLS LAB

1. You are invited in a meeting to interpret for deaf persons. How would you interpret the following sentences:
 - I am eating two chapattis
 - I will see my father tomorrow
 - My country is Rwanda
 - I sell chicken
 - I have two sisters
 - I saw a doctor yesterday



END OF UNIT ASSESSMENT

1. What is the sign language of the following numbers: 1,3,4?
2. What is the sign language of following family members: Father, Mother, grandfather, woman?
3. What is sign language of the following greetings?
 - a. Good Morning b. Good Afternoon c. Good Evening d. Goodbye f. nice to meet you
4. What is the sign language of the following food?
 1. Water 2. Meat 3. Cassava 5. 4. Mango
5. Give the correct sentence and its sign language
 1. My brother visit-me
 2. Yesterday, me stay home
 3. Exercise you want you?
6. Discuss on the techniques and approaches of teaching deaf learners.

UNIT 13

INTERMEDIATE LEVEL OF BRAILLE AND TEACHING APPROACHES FOR LEARNERS WITH VISUAL DIFFICULTIES

Key Unit Competence: Use Braille transcriptions at intermediate level, and teaching approaches for learners with visual difficulties.



INTRODUCTORY ACTIVITY

Read the following passage and answer the questions

Mukunzi was born in Kigali, Kimironko sector, Gasabo District. She was born in a family of four children where she was the first-born. Mukunzi was very beautiful girl who was loved by many people in her family. She started school at the age of six and when she was in class four, she lost her sight as a result of an infection and became totally blind. This meant that she could not continue with her education and she was forced to remain at home when her brothers and sister went to school. Her parents were psychologically affected and lost contact with members of the family and also their friends because of what had happened to their daughter. They went around looking for people who could treat their daughter. Finding no proper treatment in hospitals they decided to go for traditional medicine.

One day some blind people heard about Mukunzi and they decided to visit her home. When they arrived there, they met with Mukunzi's parents and had a very good discussion with them. They narrated their success stories and this opened the eyes of Mukunzi's parents. After two days, the father of Mukunzi took her to a school for visually impaired where she was admitted and continued with her education. She was introduced to Braille where she learnt uncontracted and contracted Braille and also Mathematical numbers and signs for a period of one month. Mukunzi learnt braille very first and she was placed in class five surprisingly she was in class for two months and managed to get the first position after sitting for end term examinations. Her parents were very happy because they saw the bright future in their daughter. The neighbors and members of the family who had kept off from this family started talking to them and also visiting their home. After completion of primary education Mukunzi went to High School passed her final exams very well and joined the university where she graduated as a lawyer. Her brothers and sister never managed to join any university and this made it very clear that when her child who is blind gets proper education he or she

can be very successful in life. What is required is just an opportunity and they can show the world what they can do. Mukunzi got a job as a Lawyer and she managed to support herself and her parents financially. Today she loves Braille because she feels that if Braille was not there she could not be living a successful life just like her peers without disability.

1. When did Mukunzi loose her sight?
2. Who informed her parents about school for the visually impaired?
3. What did Mukunzi learn when she arrived in the school?
4. How many children did the parents of Mukunzi have?
5. Which child had the highest academic qualifications in this family?

13.1. Intermediate level Braille tactile transcriptions (Vocabulary, punctuations, figures, math signs etc.)



ACTIVITY 13.1

1. Write in Braille these letters of alphabet: a b c d e f g h i j k l m n o p q r s t u v w x y z?
2. Why do you think that Braille books are bigger in size compared to print books?
3. Do you know any words represented by letters of the alphabet when standing alone in a Braille text?
4. What are the five special common wordsigns?
5. What is the purpose of contractions in braille?
6. List some mathematical signs that you know?

13.1.1. Vocabulary

Simple sign – A sign occupying one cell only.

Upper sign – A sign containing dot 1, or dot 4, or both.

Contraction – A sign that represents a word or a group of letters.

Groupsing – A contraction that represents a group of letters.

Wordsign – A contraction that represents a whole word.

13.1.2. Simple upper wordsigns, five special common wordsigns and abbreviations.

The following table shows how the letters of the alphabet are used in braille to represent whole words when they are standing alone; usually it is the first letter that is taken.

Letters used in Braille	Whole word
b	but
c	can
d	do
e	every
f	from
g	go
h	have
j	just
k	knowledge
m	more
n	not
p	people
q	quite
r	rather
s	so
t	that
u	us
v	very

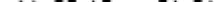
w	will
x	it
y	you
z	as

8 8

Letter **a**, **i** and **o** do not represent any word in Braille.

Single letters used in this way to represent words are called simple upper wordsigns; simple because they take up one cell, upper because they have a dot in the top of the cell, and wordsigns because they represent words. They may only be used as abbreviations for the word if they represent the exact word, i.e. when no other letters are added to them.

Example:

I like  He likes 

You will just do that.

So that I can go.

❖ Abbreviations

Ab: about; **cd:** could; **xs:** its; **Td:** today; **alw:** always;

Sd :said; **yrf**:yourself; **acr**:across; **fr**:friend; **xf**:itself; **gd**: good;

Ll: little: wd :would: brl: Braille:

Grt:great; qk: quick; vr:your;

13.1.3. Five special common wordsigns (and, for, of, the, with)



and



for



of



the



with

and dots 1 2 3 and 4 6

for dots 1 2 3 and 4 5 6 (all six)

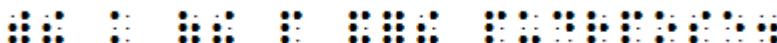
of dots 1 2 3 and 5 6

the dots 2 3 and 4 6

with dots 2 3 and 4 5 6

One uniqueness about these five wordsigns is that where two or more of these words came in succession and in the same phrase, the wordsigns that express them are written adjoining one another (if in the same line of Braille) as if they were one word, in order to save space.

Example: with the knowledge of the people and for the purpose.



The article “a” is similarly to be written unspaced from any of these wordsigns in the same line of Braille.

Example: and a and with a





Having learnt the words represented by the letters of the alphabet and the five special common wordsigns you should always remember the rules that govern them.

13.1.4. Contractions used in Braille

Groupsigns are signs expressing two or more letters which form part of a word. Let us groupsigns which have at least one dot on the top line of the cell i.e. dot 1 or dot 4, or both, and which occupy only one cell. They are called simple upper groupsigns (or one-celled upper groupsigns).

❖ And, for, of, the, with, as Groupsigns

We begin with the very same five signs which we had learnt previously as wordsigns to represent these five words. For these signs are also used as groupsigns or contractions to present the letters they stand for in a word.

Example:

band

office

forty

they

withdraw

❖ Abbreviations

Afn : afternoon; **ag**: again;

Hm: him; **pd**: paid

❖ Five Upper Groupsigns (with h)

<u>ch</u>	<u>gh</u>	<u>sh</u>	<u>th</u>	<u>wh</u>

These five groupsigns are formed by adding dot 6 to the signs for **a b c d e**.

Thus:

ch a and dot 6

gh b and dot 6

sh c and dot 6

th d and dot 6

wh e and dot 6

These signs may be used in any part of a word for the letters they represent.

Examples:

chap high she

thy who

❖ Choice of Contractions

If "th" is followed by "e", the groupsign to be used is the, because it represents the greater number of letters, as: then them clothes other.

- ❖ Wordsigns ch, sh, th and wh are also used as wordsigns:

ch stands for “child”

sh stands for “shall”

th stands for “this”

wh stands for “which”

They may only be used to express the exact word they represent and when no other letters are added to them.

Examples:

He is like a child.

But

He is childlike

❖ Abbreviations

Al: also; **bl:** blind;

(ch)n: children; **m(ch):** much;

(sh)d: should; s(ch) such; tgr : together

❖ Four upper Groupsigns two with e and two with o

ed er ou ow

ed dots 1 2 and 4 6

er dots 1 2 and 4 5 6

on dots 1, 2 and 5, 6

ow dots 2 and 4 6

They may be used in any part of a word.

❖ Choice of Contractions

In words containing the letters "thed" and "ther", use the groupsign the in preference to the groupsigns th and ed or er. As: cathedral further.

❖ Wordsign

Of these four groupsigns only one, ou, is also used as a wordsign: it stands for out. It may only be used where it represents the whole word and where no other letters are added to it.

Example:

He is out ::::: :::: ::

But:

He is outside ::::: :::: ::::: ::::: :::::

❖ Abbreviations

Abv: above; **af:** after; **alm:** almost

Alr: already; **al(th):** although

❖ The last four Upper Groupsigns

st ar ing ble

:: :: :: ::

st dots 3 and 4

ar dots 3 and 4 5

Both of these signs may be used in any part of a word

Example: stand ::::: are :::::

st by itself stands for the word “**still**”.

ing dots 3 and 4 6

bledots 3 and 456

These signs (**ing** and **ble**) may be used in any part of a word except at the beginning.

Example:

ringing :::::

doubled arable

::::: :::::

❖ **Abbreviations**

F(st) first; m(st) must;

Tm tomorrow; ac according

13.1.5. Punctuation marks

::— dash

::— hyphen

::::: ... ellipsis

Example:

Don't wait – come at once.

::::: ::::: ::::: ::::: ::::: :::::

Child-like

:::::

- staring asters steed

:: ::::: ::::: :::::

- straightest artist farther

:: ::::: ::::: :::::

- sharper quarrel fare

Figure 1. A 10x10 grid of 100 binary digits (0 or 1) representing a single row of a 10x10 matrix. The digits are arranged in a 10x10 grid.

- winged stinging arriving

"Love is life's ... sign."

"... is life's only sign."

"Love is life's only"

13.1.6. Numbers

13.1.6.1. The decimal numbers

The decimal point sign :: dots 2 5 and 6, represents the decimal point in print, and is written immediately following the numeric mode indicator in expressing a decimal (unless there is a zero in the print, in which case it must be copied in braille) as:

-7 0.7

When a decimal fraction is joined to a whole number, the numeric mode indicator is written before the whole number.

7.95

❖ Roman Numbers

I.	II.	III.	IV.	V.	VI.	VII.
		<img alt="Br				



SELF-ASSESSMENT 13.1

- Debraille the following words and sentences:

Braille is a system of raised dots used by blind people to read and write. It consists of six dots arranged in a square frame. Each dot is either raised or not raised. The combinations of raised and not raised dots represent different letters and symbols. Braille is used in many countries around the world, including South Africa. It is a form of communication that does not rely on sight.

13.2. Teaching approaches for learners with visual difficulties and related resources

13.2.1. Teaching approaches for learners who are blind



ACTIVITY 13.2

- What methods do you think a teacher can use in class to teach a learner with visual impairment effectively?
- Explain some of the braille equipment used in teaching braille to learners who are blind.

In order to address the needs of blind students, teachers may use the following methods in teaching them Braille and other subjects in class:

- Use real object in order to understand a literary description. This is because learners with visual impairment understand better when they touch an object which they can observe using their hands.
- Add descriptions to all images.
- Use life situation in order to develop the communication skills.
- Dramatize the stories by role play.
- Repeating the information as many times as it takes for the students to properly understand
- Reading Braille takes more time than reading print. Therefore, the teacher should allow more time to vocabulary exercises (solving synonyms, antonyms, homonyms, the meaning of words in contexts, spelling exercises, etc.) in order to improve communication and avoid stereotypes.
- Use riddles to develop creativity
- Allow more time for tests and national exams;
- If the book is not in Braille, use audio-books.
- Reading, theatre and other art forms helps the blind to develop vocabulary, imagination, communication and become an integrated and a successful person- access to information.
- Good Braille reading is characterized by few zigzag, up-and-down, or fluttering movements, uniform pressure of the finger on the page, no regressive movements and well-adjusted movements between lines with the help of both hands combined with a deep and accurate understanding of the meaning of the text.
- If necessary, teachers should use one to one approach in teaching Braille or alternatively they use whole class approach.
- Individual attention is paramount when teaching Braille to beginners just like any other practical subject.
- It is important that for a child with visual impairment attention be given to the development of tactful perception and listening skills.
- Students will need special instruction to learn to read and write braille code.
- The teacher before introducing the child to the slate and stylus he/she should use the Braille cell peg board. The board has six holes and each hole represents a braille dot. The pegs should be used to write the letters of the alphabet. For instance: one peg placed in first hole on your left hand side will be letter a; if another peg is placed in second hole downwards still on the left hand side the letter will now be b represented by dots one and two.

- Usually students are introduced first to the alphabet and uncontracted braille, and once they are proficient in recognizing and producing letters, they move on to contracted braille.

Now let us look at related resources used by learners with visual impairment

Writing and reading usually begin at age 6-7 years (depending on country) and is usually acquired at school. Blind students learn to write the Braille code using a Braille typewriter (Perkins in most cases) at the same age as students without disabilities



Perkins Typewriter for blind students; the six keys are numbered



Slate and Stylus

Braille characters are small rectangular blocks called cells that contain tiny palpable bumps called raised dots. The number and arrangement of these dots distinguish one character from another. A full Braille cell includes six raised dots arranged in two lateral rows each having three dots. The dot positions are identified by numbers from one through six.

Single cell pegboard

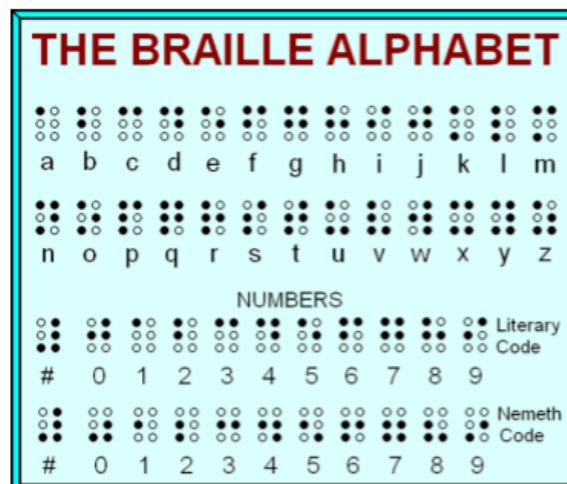


This a board where learners use pegs to write letters of alphabet

Numeral Cell peg Boards



This board can be used to teach number facts, counting, number recognition, beginning addition and subtraction, number relations, sequencing and color recognition, and it even helps develop fine motor skills especially to preschool children.



Braille Alphabet chart including numbers

Victor Reader

The Victor Reader is used to record all the lectures. The learner plays it back to learn more as he/ she revise.



SELF-ASSESSMENT 13.2

1. Why do you think Braille reading takes a longer time than print reading?
2. Write down any three equipment used in writing Braille?
3. Explain at least three teaching approaches used in teaching braille to learners who are blind?



SKILLS LAB

1. Visit a nearest school, identify a child with Visual Impairment. Assess the method he/ she uses in reading (large print, braille). Write a two-page document to advise the teacher on how to effectively teach braille to learners with Visual Impairment.



END OF UNIT ASSESSMENT

1. Write down the words represented by the following letters in Braille:

 2. List down three special common wordsigns
 3. Write down the words represented by the following Braille signs:

 4. Write the following in Braille:
$$[(1309.67 - 0.28954) : (523.243 + 100)] \times (2 + 32) =$$
 5. Write any two equipment and two teaching approaches used in teaching Braille to learners who are blind.
 6. Debraille the following sentences

UNIT 14

LESSON PLANNING FOR LEARNERS WITH SEN IN AN INCLUSIVE CLASS



INTRODUCTORY ACTIVITY

Uwimbabazi has been a primary teacher since 2007. In the school year 2010, her school decided to be an inclusive school and therefore has to teach in her class, two learners with intellectual disabilities and one learner with Visual Impairment. She has been trained by REB on how to teach learners with different types of disabilities and she has no problems in planning an inclusive lesson. Every time Uwimbabazi is going to prepare a lesson, she asks herself these questions: What are the abilities and characteristics of my learners? What I am going to teach, how I am going to teach it, what should learners be able to know or do by the end of the lesson, and how will I know if they know it or can do it?

Uwimbabazi is a good teacher who is a role model to many teachers. She takes care of all her learners' needs and all participate actively. She takes time to prepare an inclusive lesson to make sure all her students are actively participating. No wonder, this year she has been rewarded by REB as an innovative teacher and best performer in all the country. It is true: Hard work always pays off.

1. What makes Uwimbabazi an innovator and best performer teacher in the country?
2. There are important questions every teacher should ask him or herself before he /she deliver a lesson, what are those questions?

14.1. Definition and importance of a lesson plan



ACTIVITY 14.1

1. How would you explain the term "Lesson Plan"?
2. Do you think, it is necessary to have a lesson plan before you teach? Why?

Good lesson planning is essential to the process of teaching and learning. A lesson plan is a teacher's detailed description of the course of instruction or 'learning trajectory' for a lesson.

A daily lesson plan is developed by a teacher to guide class learning. Details will vary depending on the preference of the teacher, subject being covered, and the needs of the learners. A lesson plan is a detailed description of the individual lessons that a teacher plans to teach on a given day. A lesson plan is developed by a teacher to guide instruction throughout the day. It is a method of planning and preparation.

Lesson plans are the teachers equivalent of a blueprint for a construction project. Unlike construction, where there is an architect, construction manager, and a myriad of construction workers involved, there is often only one teacher. They design lessons with a purpose and then use them to carry out the instruction to construct skilled, knowledgeable students. Lesson plans guide the daily, weekly, monthly, and yearly instruction within a classroom.

Dynamic lesson planning is time-consuming, but effective teachers will tell you that it lays the foundation for student success. Teachers who fail to put in the proper time to plan accordingly short change themselves and their students. The time invested in lesson planning is well worth any investment as students are more engaged, classroom management is improved, and student learning naturally increases.

The following are the importance of lesson planning:

- Lesson- Planning gives the teacher greater assurance and greater freedom in teaching. The teacher who has planned his lesson wisely, enters the class-room without anxiety, ready to embark with confidence upon a job he understands and prepared to deliver.
- It provides for adequate lesson summaries, ensures a definite assignment for class, and availability of materials for lesson when needed.
- Since lesson planning establishes proper connections between different lessons or units of study, it provides and encourages continuity in the teaching process.
- It enables the teacher to know the most desirable type of teaching procedures and to prepare tests of progress and checks for judging the outcomes of instruction.
- Lesson-planning prevents waste because it helps the teacher to be systematic and orderly. It saves him from haphazard teaching.



SELF-ASSESSMENT 14.1

1. Explain what is a lesson plan?
2. Discuss the importance of lesson planning in teaching and learning process?

14.2. Key elements in lesson planning



ACTIVITY 14.2

1. What do you think should be included in the lesson plan?
2. With an example, explain the difference between learning objectives and instructional objectives

Planning a lesson is an important responsibility for a teacher and critical for enhancing the students' learning and teacher's confidence. The competence-based lesson plan has 27 different parts that teachers are expected to complete.

a. Check your scheme of work

Before the start of every academic year, teachers accomplish the scheme of work based on the subject syllabus, the school calendar and time allocated to the subject per week. For lesson plan preparation, consider the following questions:

- What lesson have you planned to teach in a given period, such as a term, a month and a week?
- What key competence do you hope to develop by the end of unit?

b. Identify the generic competences and cross cutting issues

From the scheme of work, the teacher identified the key unit competence by looking at the subject syllabus. Each lesson must also incorporate generic competences and cross cutting issues.

c. Set instructional objectives for the lesson

An instructional objective should have at least 5 components. The following steps can guide you to write the statement:

1. Determine **who** you're talking about
2. Note the **behaviour/action/competence** you're looking for - **evidence of student action** (choose from the list of verbs in the tips and aim for higher levels of comprehension).
3. Include the **content** you want the student to learn
4. Reflect on the **conditions**, or how the student will accomplish the task
5. Have a **standard of performance** - criteria for acceptable performance

Examples of instructional objectives

1. Using an extract on agricultural products from an article in The New Times, and transcribed in Braille for learners with Visual difficulties, the learners will be able to read one paragraph on the importance of avocado fluently 150 words in 5 minutes, 10 minutes for learners with speech difficulties and 15 minutes for those with cognitive difficulties.
 - **Who:** Learners (diverse learners)
 - **Behaviour:** Will be able to read
 - **Content:** one paragraph on the importance of avocado
 - **Condition:** Using an extract on agricultural products from an article in The New Times
 - **Performance standard:** Fluently in fixed time
2. Given a gap-filling exercise on elements of a good map, learners will be able to indicate and explain correctly the 5 elements of a good map in 5 minutes and in 15 minutes with more explanation for learner with cognitive challenges. The teacher will read for the two learners with visual difficulties and allow them to answer verbally.
 - **Who:** Learner including those with intellectual disabilities and Visual Impairment.
 - **Behaviour:** Will be able to indicate and explain
 - **Content:** Element of good map
 - **Condition:** Using gap-filling exercise on elements of a good map
 - **Performance of standard:** Correctly in fixed time

d. Identify the types and number of learners with SEN

In the section titled 'Type of Special Education Needs and number of learners in each category', insert the type of SEN that you have identified in your class, and the number of learners with SEN in the class. In addition, note how learners with SEN will be integrated or accommodated in the game or activity so that they are also able to participate and learn.

e. Identify organizational issues

This part of the lesson plan conforms to creating positive learning environments, specifically related to physical safety and inclusion. In the section titled “Plan for this Class (location: in / outside)”, you can write down where you will hold the lesson.

f. Decide on the teaching and learning activities

In this part the teacher summarizes the learning and teaching process including main techniques and resources required. Afterwards, the teacher details activities to be carried out by the teacher and learners. In the column of teacher's activities, the teacher describes the activity using action verb in infinitive form. The questions and instructions provided by the teacher are also written in this column. In column of learner's activities, the teacher describes the learners expected activities, findings and answers. However, for some activities or answers which cannot fit in that column, the teacher will indicate them in appendix. The teacher will specify if the activities will be carried out individually, in small groups, or by the whole class.

In the column of the generic competences and cross cutting issues to be addressed, the teacher writes down generic competences to be developed through learners' activities and how they will be developed. The cross-cutting issues to be addressed depend on the lesson content and activities. In the column of steps and timing in the lesson plan format, there are three main steps; introduction, development of the lesson and conclusion.



SELF-ASSESSMENT 14.2

1. Explain briefly the key elements of lesson planning?
2. What is an instructional objective? Develop an inclusive instructional objective?

14.3. A sample of an inclusive education lesson plan



ACTIVITY 14.3

1. What do you understand by inclusive lesson plan?
2. What are the main parts of a lesson plan?

Physical Education Sample Lesson Plan

School Name: GS Mayange A

Teacher's name Mutware Leopard

Term	Date	Subject	Class	Unit Nº	Lesson Nº	Duration	Class size				
3	16 / 9 / 2019	Physical Education	38-61	4	6/12	45 min	45				
Type of Special Educational Needs to be catered for in this lesson and number of learners in each category				2 learners with Muscular Dystrophy							
Unit title		Athletics									
Key Unit Competence		Demonstrate different ways of throwing heavy objects and different types of jumping and running at accelerated speed.									
Title of the lesson		Exercise of Jumping									
Instructional Objective		Using sticks rested on a paper boxes, learners will be able to jump over about 2 feet high, jumping 2 meters' distance landing on both feet. Two learners with Muscular Dystrophy will jump over about 1 foot high, jumping 1-meter distance, landing on one foot.									
Plan for this Class (location: in / outside)		Outside the classroom, in the playground									

Learning Materials (for all learners)	Playground, Paper boxes, Ropes, Whistle, Sticks, Balls
References	Teacher's guide, Syllabus, Scheme of work

Timing for each step	Description of teaching and learning activity		Generic competences and Cross cutting issues to be addressed + a short explanation
	Teacher activities	Learner activities	
Introduction 5 min	-Guide the learners to carry out warm up exercises	Learners carry out warm up exercises. Jogging, jumping over the ball, push up, elbow tug of war and duck fighting. Learners with Muscular Dystrophy warm up to their level of endurance.	Peace and values: Through Warm up exercises, learners will respect one other, tolerate those who are different.

Development of the lesson 30 min	<ul style="list-style-type: none"> -Form lines of between 5 to 10 learners -Set objects for the learners to jump over. -Marks the landing point - Assist learners with Muscular Dystrophy 	<ul style="list-style-type: none"> -Learners form groups and lines -Learners jump over the stick -Learners discuss the importance of jumping in life 	<p>Gender: both girls and boys will participate equally</p> <p>Critical thinking: Learners will critically analyse the importance of jumping exercise in life.</p> <p>Communication: is developed through answering questions and discussions</p> <p>Inclusive Education:</p> <p>In game the learners with Muscular Dystrophy will play the same game but with modification. They will be allowed to sit or take break anytime they feel tired and exhausted.</p>
Conclusion/Assessment 10 min	<ul style="list-style-type: none"> -Guide learners to summarize how the exercise went on -Facilitate the learners to declare the winners - Guide the learners as you discuss on importance of jumping exercise in life. 	<ul style="list-style-type: none"> - Discuss how the exercise was and appreciate those who did it well. - Discuss on the winners - Discuss the importance of jumping exercise in life 	<p>Peace and value: Learners agree on the winners and respect the decision of others</p> <p>Critical thinking: learners summarize the whole exercise and</p>
Teacher self-evaluation	Strengths: All learners have actively and inclusively participated in the lesson		



SELF-ASSESSMENT 14.3

1. Briefly explain the element of inclusive lesson plan?
2. Analyse the instructional objective set above and show the component of inclusive instructional objective?



SKILLS LAB

1. After you have graduated from TTC Rubengere, you have been deployed to teach mathematics at EP Kayenzi. You are in primary four and you have to teach a lesson on: "Reading and writing numbers in words and figures". In your class, you have two learners with Dyscalculia and one learner with Visual Impairment. Prepare an inclusive lesson plan and deliver it.



END OF UNIT ASSESSMENT

1. With an example, explain the components of an instructional objective?
2. What do you think, teachers should have a lesson plan?
3. In your own words, explain what lesson plan mean?
4. What are the main elements of an inclusive lesson plan?

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