

MODULE 3 CHILDHOOD DEVELOPMENTAL ANOMALIES AND CONTEMPORARY EARLY CHILDHOOD MODEL

There are certain stages in development that all children go through, such as sitting, standing, walking, etc. These stages are reached approximately at the same age by most children and are called milestones. These serve the important function of indicating whether the child is growing normally. Any deviation outside the normal development shows an anomaly in the particular area of functioning. This module introduces us to childhood developmental anomalies highlighting types, causes and characteristics of children with developmental disability. In the module we shall also study the contribution of two contemporary early childhood models to the development of early childhood education. The topics under this module are organized into five units as follows:

- Unit 1 Types of Developmental Anomalies
- Unit 2 Causes of Developmental Anomalies
- Unit 3 Characteristics of Children with Developmental Anomalies
- Unit 4 Contribution of Maria Montessori to Early Childhood Education
- Unit 5 Contribution of Reggio Emilia to Early Childhood Education

UNIT 1 TYPES OF DEVELOPMENTAL ANOMALIES

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1.0 INTRODUCTION

The time from birth to eight years is a critical period in the development of many foundational skills in all areas of development. If you reflect a little, you will find that there are six areas which are crucial to one's normal functioning. A difficulty in any one of these can lead to a problem in adjustment and requires some extra effort on the part of the person to cope with it. A child or a person who experiences difficulty in one or more of these areas of functioning is a special child. Can you identify these areas? They include movement, intelligence, socio-emotional relationships; others are vision, hearing, communication.

We shall discuss each of these areas in details. Please note that early identification of special needs is a key to a child's successful development. If special needs are not identified early, children may go through years of failure. This failure can create a poor self-concept, which may compound the disability. To identify special needs, we need to understand normal development in children. The "Stages of child development" described in module 2 has provided us with knowledge of normal developmental pattern in children. When a problem is suspected, observe the child closely. Any unusual behavior such as social, emotional, visual or physical development could suggest a possible special need. For example, earlier detection of hearing deficits sometimes leads to correction of problems before serious language impairments occur.

2.0 OBJECTIVES

At the end of this unit, you should be able to:

- explain with examples the meaning of the terms: impairment, disability, handicap;
- list and discuss the various types/dimensions of physical disabilities in early childhood years;
- list and describe the various types, degrees and classifications of mental disabilities;
- list and discuss the various dimension and examples of socio-emotional difficulties in children in early years;
- list signs of visual, hearing, and speech disabilities in children in early years; and
- mention causes of visual, hearing, and speech impairment in children in early years.

3.0 HOW TO STUDY THIS UNIT

- i. Begin by reading the list of sub-heading to see what the unit will cover.
- ii. Read the main body carefully
- iii. Attempt the self-assessment exercise after each main topic.

4.0 WORD STUDY

Handicap: Sometimes, a permanent physical or mental condition that makes it difficult or impossible to use a particular part of the body.

Retardation: to make the progress or development of something slower.

Pre-school: A school for children between 2 years to five years (Nursery)

5.0 MAIN CONTENT

5.1 Meaning of the terms: impairment, disability, handicap

You may have heard some of the following terms used interchangeably: impairment, disability and handicapped. However, each of these terms has a specific usage and meaning. We tend to use all the three as having the same meaning. It is important to understand the difference among them because that will also influence our attitudes towards children who have these difficulties.

Impairment refers to a diseased or a defective tissue or a part of it. For example, if the cornea (white part) of the eye becomes dry and wrinkled, then it has become defective and is impaired. If during childbirth the child did not get enough oxygen, some brain tissue may have been damaged. This is impairment. If the tissue of the foot becomes diseased causing rot to set in, it has become impaired. A birthmark is also a defective tissue.

Disability refers to the absence of a particular part of a body or organ, or a reduction in function of some part of the body. If the cornea becomes dry and wrinkled, as happens in deficiency of Vitamin A, then the child will gradually lose sight. So the impairment of the cornea has led to disability. A person, who because of damage to some part of the brain finds it difficult to control the muscles required for speech, has a disability in communication. The person, whose foot has to be amputated because gangrene (an impairment) has set in, will have a physical disability. However, a birthmark is not a disability because it does not prevent the person from carrying out some function. Similarly, if a person has had some minimal damage in the ear but this does not affect the ability to hear, then the impairment of the ear has not caused a disability. The point that is emphasized here is that impairment may or may not lead to a disability.

Handicap implies the problems of the impaired or disabled person when interacting with and adapting to the environment. By environment we mean not only the physical environment but also the social environment that is, people around us and our relationships with them. Think of a person who is extremely aggressive, loses his/her temper often and finds it difficult to get along with most people. Is this person not handicapped in his/her social relationships. If the blind person has some difficulty in going about the daily business of life, in forming relationships, in acquiring an education and subsequently a vocation, then the disability has resulted in a handicap.

However, if she faces no problem or has only a minimal difficulty, she is not handicapped even though she has a disability. You may have seen physically disabled people plan a trip to far places. Of course, they may need some special equipment or the help of people close to them. But they are able to do most of the things that other people do. Would you call them handicapped? The birthmark on a person's face is a handicap if one wants a career in a film. However, the impairment does not affect a person in functioning normally and is therefore not a handicap. Handicap has to do with the effects of the disability or impairment. If the effect is minimal, then the person finds it relatively easy to adjust to the impairment or the disability. This is what we have to aim for - to reduce the effect of the disability as much as possible, so that the person does not feel handicapped.

It becomes evident then that impairment or disability may lead to a handicap in some areas but not in others. A blind person has a handicap in mobility, particularly in unknown territories, but has no handicap when it comes to singing.

SELF ASSESSMENT EXERCISE I

State whether you agree or disagree with the following statements. Give reasons for your answer

- (a) An impairment always leads to a disability ()
- (b) A disabled child is handicapped in all areas of functioning ()
- (c) A disabled child can be helped to improve his or her level of functioning ()

5.2 Dimensions of Physical Disabilities (Mental Retardation or Mental Deficiency)

When we talk about individuals with physical disability, we refer to all those who have physical limitations in organs such as limbs, bones, joints, or muscles. It also refers to individuals who have health problems which limit their ability to lead a normal, healthy life, e.g. convulsions or fits. Not being able to move like most others, can affect a child's life in many ways. It is possible that some children who have difficulty in movement can move around with the use of sticks or crutches or a wheelchair. Others may not be able to move at all and are completely immobilized. All the children for whom normal movement is not possible are special children, since they need some special equipment to help them overcome or reduce their difficulty.

There are two major categories of physical disabilities:

- (i) **Muscular skeletal disability:** this is defined as the inability to carry out distinctive activities associated with movements of body parts due to muscular or bone deformities or diseases. E.g. arthritis, club foot, muscular dystrophy - a disease in which the muscles responsible for voluntary movement of the body progressively weaken and degenerate, until they can no longer function.

- (ii) **Neuro muscular disability.** This is defined as the inability to perform controlled movements of affected body parts due to diseases or disorder of the nervous system / due to damage to the brain or the spinal chord. E.g. cerebral palsy, poliomyelitis, convulsions/fits
- (iii) Others that are caused due to illness and disease and have an effect in the general health and also due to accidents

Educational implications

As you would have understood from reading the unit, for children who have only physical impairment, the curriculum and educational goals will be the same as for physically normal children. They may however require special guidance to train in skills like using the toilet, dressing, feeding and movement. For children who have handicap in addition to physical limitations, for example mental retardation, you will have to modify the activities in keeping with their level of intellectual functioning. Depending upon the extent of the handicap, the child may benefit more from attending a special school rather than a regular preschool center. While it is necessary to look for appropriate people or agencies for specific advice for children with physical disabilities, it is important to remember that if given ample opportunity to develop socially, emotionally and educationally in as normal a fashion as possible, many children with physical handicaps can make healthy adjustments to their disabilities and become contributing members of the society.

SELF ASSESSMENT EXERCISE II

Distinguish between neuro muscular disability and muscular skeletal disability

5.3 Dimensions of Mental Disability

Mental retardation is a term used when a person has certain limitations in mental functioning. These limitations will cause a child to learn and develop more slowly than a typical child. Mental disability is a condition that slows down mental and physical growth. It is not an illness or disease, but a condition due to inadequate development of the brain. Children who have this condition are called mentally retarded. A child can be born mentally disabled or become mentally disabled, during or after birth. Just as the child's body grows and develops in a manner appropriate to her age, the mental abilities also expand in accordance with age. The rate of development of the mental abilities of the child is known as her mental age. In normal children, the age in years and mental age go together. If a child is described as having normal mental development it means that she has the same level of mental abilities as the majority of normal children of that age. But in a mentally retarded child, there is slowing down in the development of the mental abilities and the mental age is lower than chronological age. For example, a child who is slower than a normal child to walk, eat, talk and to reach other milestones of development. A mentally disabled child who is five years old may act, talk, and behave like a three year old. Some mentally disabled children grow faster as compared to others like them. But

development of all mentally disabled children is slow as compared to normal children of their age. One way of knowing that a child is retarded is that development in many areas of functioning would be affected. Development in many areas would proceed slower than what is expected of a child of that age. Some of the areas that are usually affected are:

- i. The mentally disabled child has difficulty in communicating with others, both through speech and action. In fact a retarded child learns to speak later than other children. the child may have poor vocabulary and articulation problems. The speech may be unclear and therefore, may be incomprehensible to the listener.
- ii. Motor Development: there is a lack of coordination in gross and fine motor movements. The milestones of motor development are delayed.
- iii. Self Care: the child with mental retardation takes longer to learn to look after his/her own daily needs such as eating, dressing, and going to toilet.
- iv. Social Skills: the mentally disabled child finds it difficult to deal with other people. She/he develops the skills of interacting with other children and adults through training and conscious effort.
- v. Self-direction: there is a lack of direction in retarded children's actions. They may do something without purpose, such as rock themselves while sitting or carry on doing something for no reason.
- vi. Health and Safety: many of these children require help from others to look after their health and safety even after they are grown up. Some people with mental disability cannot be left alone in a place which is not safe, even when they are adults.
- vii. Academic Work: generally, when children do not learn to read and write at the expected age, we consider that their mental development is slow for their age. Some may never be able to attend formal school due to their mental limitations, while others may take longer compared to their age mates, to complete primary level education. There is a wide range of abilities even among children we call retarded.
- viii. Leisure and Work: mentally retarded children are often unable to use recreational facilities and other opportunities for enjoyment. They may also lack the initiative to take up work independently. They are easily distractable and therefore tend to be careless. Therefore, they require the assistance of family members, neighbours or social workers.

Reading through the above description of areas of limitations may give one the impression that mentally disabled children cannot do anything. This is not true at all. They are capable in many ways. Besides, all children with mental retardation will not have difficulty in all these areas. Also, the extent to which development will be affected in these areas varies from child to child; this will depend on the child's degree of retardation. The level of retardation may vary from high to low. It is what is meant in the above sentence that 'there is a wide range of abilities even among children we call retarded'.

Degree of mental retardation:

Broadly, mental retardation is divided into three categories based on the level of intellectual and social functioning of the child. A child may have mild, moderate, severe or profound degree of mental retardation.

- i. Mild retardation: when the mental ability of the child is more than half but less than three-fourths of that expected of his/her age, he/she is mildly retarded. For example a child of 10 years having mental abilities and behaviors of a 6-7 year old.
- ii. Moderate Retardation: mental development is more than one fourth but less than half of what is expected for that particular age, the child is said to be moderately retarded. For example, a child of 12 years having mental abilities of 4-5 years.
- iii. Severe and Profound retardation: when the mental growth is a little less than one fourth of that expected for a particular age, the retardation is severe. Beyond that it is called profound retardation.

Mental retardation is a term used when a person has certain limitations in mental functioning and in skills such as communicating, taking care of self and lack of social skills. These limitations will cause a child to learn and develop more slowly compared to a typical child. Children with mental retardation may take longer to learn to speak, walk, and take care of their personal needs such as dressing or eating. They are likely to have trouble learning in school. They will learn, but it will take them longer than expected.

We all have come across individuals who tend to forget instructions frequently, with whom we have to talk simply, who do not seem to understand what is going on around them, and who cannot, beyond a certain point, learn any new thing. If we depict the attribute of intelligence as a range, then we find that some of us are extremely intelligent, most of us are average in our intellectual capacity and some of us are below average. The children who are below average in intellectual functioning will find it hard to meet the demands that everyday living calls for. They have special needs. Perhaps they find it difficult to manage money, fail to understand simple instructions or concepts and have to be helped to deal with day-to-day situations. One way of finding out whether a child falls in the problem end of the attribute of the intelligence is to see whether or not she functions as one would expect of children of the same age.

Classification of mental retardation: A system for identifying retarded children was provided by the test developed by Binet and Simon in Paris about the year 1900. There were subsequent revisions of the test by Terman and his colleagues at Stanford University in 1916, 1937 and 1960. The mentally retarded children are generally classified as this:

- (i) idiots
- (ii) imbeciles
- (iii) morons.

(iv) dull normal.

Research findings that using intelligence tests, show that the 'idiots' have IQ ranging between 0 to 25, 'imbeciles' 25 to 50; 'morons', 50 to 75 and 'dull normal' 75 to 90 [note: a normal child had an IQ of 100].

Psychologists have advised against labeling human beings with negative terms as doing that has psychological implications for educational purposes therefore, the following terms are used for each classification:

- Morons - Educatable Mentally Retarded (EMR)
- Imbeciles - Trainable Mentally Retarded (TMR) and
- Idiots - Profoundly Retarded (PR).

The following table summarizes the classification.

Classification of mental retardation

Negative terminology	Positive terminology	IQ
Idiots	Severely or profoundly retarded	0 to 25
Imbeciles	Trainable mentally retarded	25 to 50
Morons	Educatable Mentally retarded	50 to 75
Dull normal		75 to 90

SELF ASSESSMENT EXERCISE III

With examples explain what mental retardation means

5.4 Socio-emotional disability

You remember reading that socio-emotional development refers to how we relate to others in our day to day living, the relationships we form with people, and our emotional ties. As you know, some individuals find it easy to form relationship with others- they are well liked, respected and sought out. Most of us have our share of ups and downs. As you must have noticed, we use difficulty rather than disability for socio-emotional aspect because it manifests in behavioural terms.

Behaviour difficulties in a child are a cause of concern to the parents as well as to the educator. A child with a behaviour difficulty may find it difficult to be accepted and liked by other children. The difficulty may come in the way of the child being able to form relationships with others; it may cause him/her to develop a low self-concept and may even hamper learning. Therefore, it is necessary that you help the child overcome such difficulty. Sometimes it may become difficult to identify whether or not a child has a behaviour difficulty because different people may view and interpret the

same behavior differently. To judge whether or not a child has a behavior difficulty, one would need to observe the child in different situation over a period of time.

Whether or not a particular problem behavior can be termed serious would depend on three factors:

- i. Its frequency: does it occur very often?
- ii. Its intensity: when it occurs, does it express forcefully?
- iii. Its duration: does it occur over several weeks or more?

High frequency, high intensity and long duration of a behavior difficulty in the child would render it serious. For example, if a preschool child cries sometimes in response to distress, and becomes quiet when soothed, it is not a problem behavior. But if she cries in response to almost every situation of anxiety and continues to cry for a long time despite effort to soothe, it is a sign of an emotional problem in the child. Some examples of behavior difficulties include:

- i. temper tantrums: The child expresses anger by screaming, throwing things around, and throwing her/himself on the floor. Some may bite or hit themselves
- ii. Enuresis commonly called bed-wetting. When a child is between 5 and 6 years of age and still wets at least twice a month for about six months, we can say that the child has enuresis.
- iii. Withdrawn behavior
- iv. Aggressive behavior: this is the opposite of withdrawn behavior. The child is more assertive and quarrelsome than is desirable. Common ways in which children express aggressive behavior are hitting, kicking, pinching, spitting at others, using bad language, teasing, etc.
- v. Stealing
- vi. Hyperactivity: children with hyperactivity are not simply overactive. They suffer from low attention span and they act without thinking.
- vii. Fears and phobias: a phobia is an extreme reaction towards an object or person that cannot be categorized as a fearful stimulus. E.g. if a child shows fearful behavior towards a chair in the house, it will be a phobia.
- viii. Autism: a rare condition that forces a child not to relate with others

While managing these problems

- i. do not use physical beating to discipline the child
- ii. do not shame the child in the presence of other children
- iii. do not lock the child up in a room

The textbooks use terms such as ‘behaviour disorders’, ‘behaviour problem’, ‘emotional problems’ or ‘behaviour deviations’ to refer to socially unacceptable behaviours. We will use the term behaviour difficulty, as it is a more child-friendly term. In order to decide as to which of the behaviors are unacceptable and require intervention, we need to agree on the criteria that should be used to see a particular

behaviour as difficult. There are two reasons why a child's behaviour would be seen as unacceptable and we would say that the child has a behaviour difficulty. These are:

- It has a negative effect on the child's development and adjustment.
- It interferes with other people's rights.

SELF ASSESSMENT EXERCISE IV

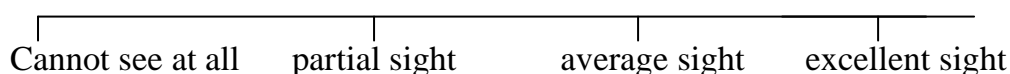
Mention six examples of childhood behavior difficulties

5.4 Visual, Hearing and Speech Impairment

Visual impairment

What are the things that will be affected the most if one has no vision? Primarily, one's ability to move around and reading and writing. In other words vision is important for learning in the home and in the classroom. All of us vary in our visual acuity. Some of us have excellent eyesight, being able to read even distant signs. Most of us have average eyesight and can function well without the use of spectacles. The people who have less than average eyesight may be able to correct it by using corrective lenses. But as the visual ability falls still further that even glasses do not help much, then the person begins to have a problem. When the eyesight is so low that objects which most people can see 200 feet away have to be brought to 20 feet before the person can see them, then the person is legally blind. Such people can read, but only when the print is very large. They have partial sight. Then there are some people who cannot see at all.

Thus we can see that visual activity falls along a range from those with very good eyesight to those who cannot see at all.



It is when the child's eyesight falls so low that she/he cannot read normal print and some special means have to be devised to help her read, that she is considered a child with visual impairment.

Visual impairment means having difficulties with one's vision. It refers to all levels of vision loss. It is the consequence of a functional loss of vision rather than the eye disorder itself. The visually impaired are made up of:

- (i) the blind.
- (ii) the low vision.
- (iii) the partially sighted.

Signs of visual impairment

The following are some symptoms of visual impairment.

- The child rubs the eyes excessively

- The child shuts or covers one eye, tilts head or thrusts head forward in an attempt to see better
- The child experiences difficulty in reading or in other work requiring close use of the eyes
- The child blinks more than usual
- The child becomes irritable when doing close work and complains of pain, dizziness and nausea
- The child holds things close to the eyes when examining them
- The child finds it difficult to see distant things clearly
- The child frowns or squints eyelids together when looking at something
- The child tends to confuse letters of a similar shape
- The eyes appear red rimmed and swollen
- The child complains that the eyes feel itchy and scratchy
- Crossed eyes or those that are not straight
- Confuses letters and words which look somewhat alike. For example, children with eye impaired vision often confuse the letter “b” and “p”, “a” and “e”.
- Skip letters words or lines while reading.
- Writing is unusually small, large, or poorly written. Impaired vision tampers with proper eye hand co-ordination. In such a case, the writings formed are written with difficulty and are therefore irregular or uneven.

If any of the above signs are noticed, the child must be referred to an ophthalmologist. The presence of one or more of these signs does not always mean that the child has a visual impairment, but the child has to be referred for further evaluation in order to confirm if there is visual impairment.

Causes of visual impairment

(a) Causes due to condition of the eye

1. **Albinism:** Inherited condition resulting in decreased pigment, which causes abnormal optic nerve development.
2. **Cataracts:** Opacity or cloudiness of the lens. Because light cannot pass through the lens, vision is affected. Children with cataracts may have reduced visual acuity, blurred vision, poor colour vision, or light sensitivity.
3. **Coloboma:** A birth defect which causes a cleft in the pupil, lens, retina or optic nerve. It can result in reduced acuity and field loss if the damage extends to the retina.
4. **Glaucoma:** Increased pressure in the eye due to blockage of normal flow of fluid in the eye. A child with glaucoma may also have peripheral field loss, poor night vision, and light sensitivity.
5. **Strabismus:** A muscle imbalance resulting in the inability of both eyes to look directly at an object at the same time.

(b) **Causes not due to any condition of the eye**

Cortical visual impairment is due to damage to the visual cortex of the brain or the visual pathways which results in the brain not adequately receiving or interpreting visual information. Children with cortical visual impairment often have cerebral palsy, seizure disorder, and developmental delays as a result of the damage to the brain. They may exhibit inattention to visual stimuli, preference for touch over vision when exploring objects and difficulty visually discriminating objects that are placed close together or placed against a visually complex background.

SELF ASSESSMENT EXERCISES V

- i. What is visual impairment?
- ii. List three types of visual impairment.
- iii. List five causes of visual impairment.

Hearing impairment

Hearing impairment simply refers to all levels of hearing loss. It implies a total or partial loss of ability to perceive acoustic information. A hearing loss limits case of acquisition of a communication system, which further influences development of interactions with others, and the ability to make sense out of the world. Hearing impairment is a generic term that includes hearing disabilities ranging from mild to profound, thus encompassing children who are deaf and those who are hard-of-hearing.

When we speak of a person with normal hearing, we generally mean that he or she has enough hearing to understand speech. Assuming that listening conditions are adequate, a person with normal hearing can interpret speech in everyday situation without relying on any special devices or technique.

This sensory channel is equally important for optimal growth and development. If a child cannot hear, it becomes very difficult for him/her to learn to speak. It is also possible that the child may never learn to speak at all. We can depict the sense of hearing along a range, just as in case of vision. At one end are those few of us who have an acute sense of hearing, being able to detect sounds that most would not even notice. A few of us cannot hear any sound at all. This is the other end of the range. In between these two ends are individuals with different levels of hearing. Most of us are average.

Cannot hear at all	partial hearing	average hearing	excellent hearing

There are three major types of hearing losses:

- i. **Conductive loss:** This occurs when something goes wrong with the outer or middle ear, impeding sound waves from being conducted or carried to the inner ear.
- ii. **Sensorineural loss:** This occurs when damage to the inner ear or the auditory nerve impedes the sound message from being sent to the brain.

- iii. **Central auditory processing disorder:** Although there is no specific damage to the ear itself, the neural system involved in understanding what is heard is impaired. Children with central auditory processing disorder may have normal hearing as measured by an audiometer (device used to test hearing levels), but they often have difficulty understanding what they hear.

Depending on the degree of loss, hearing impairment is categorized into the following:

- (a) Mild loss (20-40 dB) – the person hears in most settings but would have difficulty in hearing faint or distant speech
- (b) Moderate loss (40-60 dB) – the person might have problem in hearing group conversations or when there is background noise or have difficulty in hearing conversational speech beyond 3-5 feet
- (c) Severe loss (60-80 dB) – the person misses all but very loud speech, will not be able to hear loud sounds beyond a distance of a foot
- (d) Profound loss (80 dB or more) – the person is unable to hear speech except a loud shout

Signs of hearing impairment

Signs or symptoms of hearing impairment are when:

- The child has frequent colds and sore throats
- Fluid runs from the ears
- The child does not follow simple directions
- The child understands your speech only after few repetitions
- The child does not respond to being called from another room
- The child uses only gestures to communicate
- The child tunes the T.V./radio abnormally loud all the time
- The child loses interest more easily because she misses out on spoken information
- Difficulty in following instructions. In our ignorance we may label such a child as lazy or shy.
- Failure to startle at loud sounds.

Causes of hearing impairment

1. Genetic factors

This may be autosomal dominant or autosomal recessive hearing loss. In autosomal dominant hearing loss, one parent who carries the dominant gene for hearing loss and typically has a hearing loss passes it on to the child. In this case, there is at least a 50% probability that the child will also have a hearing loss. The probability is higher if both parents have the dominant gene (and typically both have a hearing loss) or if both grandparents on one side of the family have hearing loss due to genetic causes.

In autosomal recessive hearing loss, both parents who typically have normal hearing, carry a recessive gene. In this case, the probability of the child having a hearing loss is 25%.

2. Prolonged exposure to noise at above 100 describes or exposure to explosive blasts, damages the ear-drum.
3. Other causes of congenital hearing loss that are not hereditary in nature include: prenatal infections, illnesses or conditions occurring at the time of birth or shortly thereafter.
4. Obstruction in the outer ear due to excessive wax or foreign bodies.

SELF ASSESSMENT EXERCISES VI

- i. What is hearing impairment?
- ii. List three types of hearing loss.
- iii. List five causes of hearing impairment.

Speech impairment

Speech refers to one's ability to understand others and make oneself understood. We rely primarily on words for communication. So individuals who have a difficulty in speaking have a communication problem.

Speech impairment entails difficulty in articulating words. A speech impaired child has difficulty learning how to produce clear intelligible speech. Speech impairment means difficulty using the body parts and muscles needed for speech. Some children cannot speak at all while some can speak but with great difficulty, having to stammer or stutter. In some cases, the child's speech and hearing are normal, but there is some damage to the part of the brain responsible for understanding language. Such a person will also have difficulty in communication. As in visual and hearing impairments, we can depict people's abilities in communication along a range, thus:

- Cannot communicate at all
- Experience difficulty in communicating
- Average
- Can communicate effectively

Types of speech impairments

1. Phonological impairments

This type of impairment occurs when a child cannot pronounce or use some sounds correctly. For example, when children leave out sounds at the end of words. They would say "ca" for "cat".

2. Articulating impairments

This occurs when a child cannot make a particular speech sound. This may be caused by a problem in the mouth or nose structures that are used during speech such as cleft palate, or they may be caused by an abnormality in the function of the muscles or nerve involved in the production of speech, such as cerebral palsy.

Causes of speech impairment

The following are some of the causes of speech impairment.

- (i) Brain tumour
- (ii) Children who are born with physical conditions such as cleft lip and cleft palate that make it difficult or impossible to learn to speak.
- (iii) Injury to the muscles needed for speech.
- (iv) Side effects of medication (drugs)
- (v) Emotional or psychological problems

SELF ASSESSMENT EXERCISES VII

- i. What is speech impairment?
- ii. List and describe two types of speech impairment.
- iii. List five causes of speech impairment.

6.0 CONCLUSION

In this unit, you were taken through to understand the difference in meaning between ‘impairment’, ‘disability’, and ‘handicap’, as these terms are often used interchangeably. You also learnt types of developmental disabilities in the area of physical, mental and socio-emotional as well as vision, hearing and speech. Under physical, mental and socio-emotional disabilities, you were further taken through their various categories and dimensions. Under vision, hearing and speech impairment, you learnt their various categories, signs/symptoms, and causes.

7.0 SUMMARY

In this unit, you learnt that impairment refers to a diseased or a defective tissue or a part of it, while disability refers to the reduction in function of some part of the body as a result of the impairment and that impairment may or may not lead to a disability. Handicap, as you learnt, implies the problems of the impaired or disabled person when interacting with and adapting to the environment. Handicap has to do with the effects of the disability or impairment and that disability may or may not result in handicap. In the unit you also learnt about various categories and dimensions of disabilities:

Under physical disability, you learnt there are two major categories: muscular skeletal inability to carry out distinctive activities associated with movements of body parts due to muscular or bone deformities, diseases, disability and neuro muscular disability and controlled movements of affected body parts due to diseases or disorder of the nervous system or damage to the brain or the spinal chord

Under mental disability, you learnt that mental retardation is a term used when a person has certain limitations in mental functioning and that the degree of mental

retardation include mild, moderate, severe or profound mental retardation. As well as the classification of mental retardation

- (i) Profoundly retarded (idiots) have IQ ranging between 0 to 25
- (ii) Trainable mentally retarded imbeciles (imbeciles) have IQ ranging between 25 to 50
- (iii) Educatable Mentally retarded (morons) have IQ ranging between 50 to 75
- (iv) Dull normal have IQ ranging between 75 to 90

Under Socio-emotional disability, you learnt that to judge whether or not a child has a behaviour difficulty, one would need to observe the child in different situations over a period of time and that the factors of frequency, intensity and duration determine whether or not particular problem behaviour is serious. Examples of behaviour difficulties that you learnt include temper tantrums, enuresis, withdrawn behaviour, aggressive behaviour, stealing, hyperactivity, fears and phobias, autism.

Under Visual impairment, you learnt that it means having difficulties with one's vision and that it refers to all levels of vision loss. You also learnt that the visually impaired are made up of the following categories: the blind, the low vision, and the partially sighted. You also learnt the signs and symptoms of visual impairment and the need to refer the child to an ophthalmologist for proper evaluation if suspected to exhibit one or more of the signs. Some of these signs include rubbing the eyes excessively, covering one eye, tilting head or thrusting head forward in an attempt to see better, experiencing difficulty in reading, holding things close to the eyes when examining them, frowning or squinting eyelids together when looking at something, confusing letters of a similar shape, itchy and scratchy eyes. Thereafter you were taken through the causes of visual impairment which include the following albinism, cataracts, coloboma, glaucoma, strabismus, and that cortical visual impairment is due to damage to the visual cortex of the brain or the visual pathways which results in the brain not adequately receiving or interpreting visual information.

Under hearing impairment, you were introduced to three major types of hearing losses which include conductive loss, sensorineural loss, and central auditory processing disorder. You learnt the various degrees of loss that they are categorized into mild loss, moderate loss, severe loss, and profound loss. You also learnt the signs or symptoms of hearing impairment and that they include: having frequent colds and sore throats, fluid running from the ears, not following simple directions, not responding to being called from another room, using only gestures to communicate, tunes the T.V./radio abnormally loud all the time, losing interest more easily because she misses out on spoken information, failure to startle at loud sounds. You learnt about the causes of hearing impairment which include genetic factors (autosomal dominant and autosomal recessive hearing loss), prolonged exposure to noise at above 100dB or exposure to explosive blasts damaging the ear-drum, head injury (accident), obstruction in the outer ear due to excessive wax or foreign bodies.

Under speech impairment, you learnt two types of speech impairments namely phonological impairments and articulating impairments. You also learnt that the

causes of speech impairment include: brain tumour, being born with physical conditions such as cleft lip and cleft palate that make it difficult or impossible to learn to speak, injury to the muscles needed for speech, side effects of medication (drugs).

In the next unit, you will learn about the causes of developmental disabilities

8.0 TUTOR-MARKED ASSIGNMENT

1. With examples explain the meaning of the following terms: impairment, disability, handicap
2. List and describe the major types of physical disability
3. List the various degrees and four classifications of mental retardation
4. List eight types of behaviour in children that can be classified as children with behaviour difficulties
5. List at least ten signs that indicate that the child may be experiencing some difficulty in seeing
6. List 10 signs which may indicate that the child is having some problems in hearing
7. List 10 signs which may indicate that the child is having some problems in speech
8. Mention causes of visual, hearing, and speech impairment.

9.0 REFERENCE/ FURTHER READING

India Gandhi National Open University, DECE 3, Children with Special Needs

UNIT 2 CAUSES OF DEVELOPMENTAL ANOMALIES

CONTENTS

- 1.0 Introduction
- 2.0 Objectives
- 3.0 How to Study this Unit
- 4.0 Word Study
- 5.0 Main body
- 5.1 Genetic Factors
- 5.2 Environmental Factors
- 6.0 Conclusion
- 7.0 Summary
- 8.0 Tutor Marked Assignment
- 9.0 Reference /Further reading

1.0 INTRODUCTION

Children develop physically, intellectually, and socially in unique ways. One child may be reading at four years of age but be unable to run without stumbling. Another may be able to manipulate blocks, climb stairs. Another of the same age and gender might have difficulty completing any of these tasks. As noted in module 1 unit 4, development is affected by both genetics and environment. Some characteristics are a matter of genetics. Chromosomes, the physical carriers of hereditary material, govern development and are responsible for some differences. Heredity alone doesn't account for the wide diversity among individuals. Infants are born into social, physical and emotional environments which affect the development of many traits and characteristics. You will recall that Urie Bronfenbrenner describes environment as an entire ecological system consisting of microsystems, mesosystems, exosystems and macrosystems.

2.0 OBJECTIVES

At the end of this unit, you should be able to:

- state the genetic factors that cause physical disability, mental disability, and socio-emotional disability; and
- state the environmental factors that cause physical disability, mental disability, and socio-emotional disability

3.0 HOW TO STUDY THIS UNIT

- i. Begin by reading the list of sub-heading to see what the unit will cover.
- ii. Read the main body carefully
- iii. Attempt the self-assessment exercise after each main topic.

4.0 WORD STUDY

Chromosomes: One of the very small structures in the central part of an animal or plant

Syndrome: A set of physical condition that shows you have particular disease or medical problem.

Conception: The process of an egg being fertilized inside a woman's body so that she becomes pregnant.

3.0 MAIN CONTENT

5.1 Genetic factor that cause developmental anomalies in children

Under mental disability

In module 1 unit 4 you have read that at the time of conception, genes are transmitted from the parents to the child. The genes contain the codes of development which enable an individual to develop from the single fertilized ovum in the mother's womb. It is possible that certain defects are also transmitted by the parents to the new child through the genes. This means that one or both parents have a defective genes that causes retardation. Fortunately the chances of a couple having defective genes that result in mental retardation are rare. In fact, with scientific research it has been possible to identify conditions under which such defects occur. Hence, mental retardation due to such factors can be prevented. If there is history of mental retardation on either side of the parents, then they should go in for genetic counseling before having a child. This will enable the couple to know what the chances are of their conceiving a healthy baby.

Another possibility is that the process of cell division at conception becomes defective and the child thus conceived has a defect, even though the parents did not have it. An example of this condition is Down's Syndrome. The child has a defective chromosomes which results in specific physical features as well as mental retardation. The child has slanting eyes and a short flat nose, a round head and face, short broad fingers, rough skin on the palm.

SELF ASSESSMENT EXERCISE I

Describe how genetic factors can cause mental disability

5.2 Environmental factors that cause developmental anomalies in children

(A). Physical disability

Prenatal (before birth) factors

Damage to the developing fetus during pregnancy can lead to physical disabilities. This can happen due to:

- Poor health of the expectant mother
- Inadequate consumption of nutritious foods during pregnancy, particularly during the first three months.
- Intake of medicines without the doctor's recommendation during pregnancy, particularly during the first three months. Some drugs to control morning sickness have been known to cause physical defects.
- Pregnancy before 20 years or after 35 years.

If the expectant mother takes care of these aspects, many of the physical disabilities can be prevented. .

Perinatal (during birth) factors

Complications during delivery can lead to physical disabilities in the child. Expectant mothers who:

- Are less than 4'10 in height.
- Have a very narrow pelvis.
- Have a history of prolonged labour in previous childbirths
- Have a big baby.
- Have had bleeding before childbirth.
- Have a poor nutritional and health status.
- Have more chances of complication during delivery.

Physical disability in the child may also occur due to

- Lack of oxygen to the child's brain during delivery.
- Use of instruments to help the childbirth.

Postnatal (after birth) factors

- (i) Accident during the early stages of development.
- (ii) Disease/illness: Infection such as polio or measles
- (iii) Environment: There are numerous factors in home and society, which lead to the manifestation of unusual behaviour. Maladjustment is one of the unusual behaviour a child can manifest. Research studies have established beyond doubt that children who come from homes either by death of parents, divorce,

separation, physical or mental handicaps of parents are more maladjusted than children from more stable homes. Children from broken homes do not get the affection, love, sympathy and security from parents. They are, therefore, emotionally disturbed.

- (iv) Deficiency of adequate calories, proteins and vitamins in the child's diet can lead to physical disabilities

B. Under mental retardation:

1. **Problems during pregnancy:** Mental retardation can result when the baby does not develop inside the mother properly. For example, there may be a problem with the way the baby's cells divide as it grows. A woman who drinks alcohol or smokes cigarette may have a baby with mental retardation.
3. **Problems during birth:** There are women who have difficult childbirth and this can lead to mental retardation. If the pregnant woman is in pain for 24 hours without the baby being born, if the child's head has been pressed excessively during labour, if the baby had to be delivered by using instruments and these have caused damage to the brain, if the baby did not cry soon after birth, If a baby has problems during labour and birth, such as not getting enough oxygen – these conditions can cause brain damage thus resulting in mental retardation.
4. **Health problems:** Diseases like whooping cough, measles or meningitis can cause mental retardation. Injury to the head due to a fall, sever physical punishment can be equally risky and should be avoided. Damaging infections contracted during pregnancy or at birth can cause mental retardation.
5. **Environmental toxins:** Exposure to a variety of environmental toxins such as lead or mercury can cause mental retardation. It can also be caused by extreme malnutrition (not eating right) and not getting enough medical care.

C. Socio-emotional disability /maladjustment:

The child's family has a tremendous influence on her behaviour and personality. Child rearing practices in the family, the immediate neighborhood, the larger community and the society are also an important part of the child's environment. Factors and people within these can also be the causes of behaviour difficulties in the child.

The family setting: while most families contribute to the emotional well being of their children in some cases the family itself becomes a cause for the child's problems. For example if there is conflict among family members especially between the mother and the father, the atmosphere in the home can become disturbing and affect the child negatively. If a time when in the family, the child can sense it. Such situations can cause tensions to the child and she may develop symptoms such as speech defects, withdrawal from people and poor concentration in work. As you know, child-rearing practices play a major role in determining the child's personality. They can be the cause of behaviour difficulty in the child. The personality of the parents plays a significant role in their methods of child-rearing. As mother who is highly anxious as she worries a lot about simple matters is likely to convey this anxiety to the child in

the way she handles her. She may get unduly upset when the child wets her bed or does not finish her feed. In her anxiety, she may punish the child in an inappropriate manner. When such situations occur often, they are very likely to have a negative effect on the child and this gets reflected in the child's behaviour. Similarly, a father who does not like crying children, may refuse to hold the baby when she is crying or scold her very loudly which made the child to may become tensed every time the father comes near her. The family may also be responsible for behaviour problems in children through the kind values the members hold and practice. If the adults resort to lying and cheating in their work, the children are bound to see that as the acceptable way of getting work done. Hence, if eight year Ayo lies to the teacher that he could not finish his school work at home because he was unwell, he is doing what he saw his father do with somebody else.

Developmental changes as causes:

It may sound strange, but it is true that the child's stage of development itself can be behind the difficulties being shown by the child. This is because each stage in a child's development has its own needs, tasks and hazards. At each stage of developmental, the child has to adjust and cope with these situations. When children find it difficult to meet these demands, their tension gets reflected in some difficulties in their behaviour. Sometimes children can solve these themselves while at other times they need help.

The important thing is to understand that a given environmental problem does not result in the same symptoms in all the children exposed to it and a given symptom in different children, such as hostile behaviour, can result due to different reasons. When a child shows a behaviour difficulty, your role is to identify what is causing it and treat the cause.

SELF ASSESSMENT EXERCISE II

State whether you agree or disagree with the following statements

- i. If a child shows some unacceptable behaviour sometime, we can say that the child is showing a behaviour difficulty ()
- ii. Sometimes when a child is not able to cope with the demands placed on her during different stages of development, it may get reflected as a behaviour difficulty ()
- iii. Child rearing practices can be the cause of behaviour difficulties ()
- iv. Polio, fits and musculo-skeletal conditions affect the mental ability of the child ()
- v. Children affected with musculo-skeletal conditions and disabled due to accidents and diseases should attend special schools ()

6.0 CONCLUSION

In this unit, you have learnt about genetic and environmental factors that cause developmental anomalies in children. You also learnt environmental factors that cause

developmental anomalies in children. The genetic and environmental factors learnt were considered under physical disability, mental disability, and socio-emotional disability.

7.0 SUMMARY

The following table summarizes what you have learnt in this unit, while in the next unit will expose you to the characteristics of children with developmental anomalies

Summary of genetic and environmental factors that cause developmental anomalies

Genetic factors that cause developmental disability			Environmental factors that cause developmental disability		
Physical Disability	Mental Disability	Socio-emotional	Physical Disability	Mental Disability	Socio-emotional Disability
No link of genetic factors to physical disability	One or both parents have defective genes that cause mental retardation	No link of genetic factors to socio-emotional disability	-Prenatal factors -Perinatal factors -Postnatal factors -Damage to the developing fetus	-Problems during pregnancy -Problems during birth -Health problems - Environmental toxins	-Child rearing practices in the family -The immediate neighborhood -The larger community -The society
	The child has a defective chromosomes which results in mental retardation				- Developmental changes

8.0 TUTOR-MARKED ASSIGNMENT

1. List and describe three environmental factors each that can cause physical disability during the prenatal, perinatal, and post natal periods
2. List and describe two genetic and two environmental factors that cause mental retardation
3. Prepare a presentation of not less than three pages to educate your community on how to prevent the occurrence of developmental disability in children

9.0 REFERENCE/ FURTHER READING

India Gandhi National Open University, DECE 3, Children with Special Needs

UNIT 3 CHARACTERISTICS OF CHILDREN WITH DEVELOPMENTAL ANOMALIES

CONTENTS

- 1.0 Introduction
- 2.0 Objectives
- 3.0 How to Study this Unit
- 4.0 Word Study
- 5.0 Main body
 - 5.1 Characteristics of children with physical disability
 - 5.2 Characteristics of children with mental disability
 - 5.3 Characteristics of children with socio-emotional disability
 - 5.4 Educational implications: Meeting the educational needs of children with developmental disabilities
- 6.0 Conclusion
- 7.0 Summary
- 8.0 Tutor Marked Assignment
- 9.0 Reference /Further reading

1.0 INTRODUCTION

In the last unit, you studied the causes of developmental anomalies. In this unit, you will be taken through characteristics of children with developmental anomalies.....

2.0 OBJECTIVES:

At the end of this unit, you should be able to:

- mention five characteristics of children with physical disability;
- list and explain five characteristics of children with mental disability;
- mention five characteristics of children with socio-emotional disability; and
- discuss how to meet the educational needs of children with developmental disabilities.

3.0 HOW TO STUDY THIS UNIT

- i. Begin by reading the list of sub-heading to see what the unit will cover.
- ii. Read the main body carefully
- iii. Attempt the self-assessment exercise after each main topic.

4.0 WORD STUDY

Aggression: feelings of anger and hatred that may result in threatening of violent behaviour.

Anomalies: Situation that is different from normal or expected.

Tantrums: short period of angry, unreasonable behaviour, especially in a child.

Curriculum: the subjects that are included in the course of study or taught in school.

5.0 MAIN CONTENT

5.1 Characteristics of children with physical disability

- (i) Disorder of movement and posture.
- (ii) Lack of coordination of other parts of the body.
- (iii) Loss of consciousness, convulsive movement.
- (iv) Stiffness of the neck and rigidity of the spinal column.

5.2 Characteristics of children with mental disability

Many mentally retarded children look like other children, particularly those who are mildly retarded. Hence, to know whether a child is retarded, many factors have to be taken into consideration.

Child's appearance: The child's head may look too small or too large for his/her size. Some children will have slanting eyes, a narrow forehead and a protruding tongue. Other children may have a dull expression in their eyes or even appear to be hearing on many occasions. Severely and profoundly retarded children stand out from the rest, due to their appearance.

Child's behaviour: Generally, a preschool age child with mental retardation will have some of following characteristics.

- i. The child has very little speech. Even if it is present, the child will speak using only a few words or short sentences such as 'Joy doll' instead of saying 'Joy give me the doll'. The speech sound would not be very clear.
- ii. The child does not understand instruction easily; this has to be repeated to make her understand.
- iii. Poor ability to pay attention to a task at hand is one of the characteristics. The child may be fidgety, irritable and restless. He/She will also tend to forget something just recently learnt.
- iv. The child may not have acquired complete bladder and bowel control.
- v. Children with mental retardation do not play actively with older children, unless helped to do so. Some of them may avoid company. They do not show initiative and imagination when playing. Their play is likely to be repetitive.

- vi. There may be problems of management of behaviour. Children may show behaviors such as unprovoked aggression, temper tantrums, stubbornness, withdrawn behaviour or resistance to new situations.
- vii. The child will have difficulty in learning.
- viii. Jerky and uncoordinated movements. Poor balance, which is seen as the child frequently trips, bumps into people or drops things
- ix. Difficulty in moving both arms at the same time.
- x. Difficulty in crossing the mid-line of the body. For example, the child will have difficulty in using her right hand to pick up a toy placed to the left of her body.
- xi. Difficulty in skills or movements involving fingers and wrists. For example the child cannot button, hold a pencil properly or use scissors.
- xii. Difficulty in eye hand coordination, which is shown when the child tries to do activities like pasting, catching a ball etc, and in jerky eye movements when she watches a moving object.
- xiii. There may be problems of management of behaviour. Children may show behaviours such as unprovoked aggression, temper tantrums, stubbornness, withdrawn behaviour or resistance to new situations.
- xiv. The child will have difficulty in learning.

5.3 Characteristics of children with socio-emotional disability

Symptoms of Emotional Disturbance:

- (i) underdeveloped conscience.
- (ii) lack of empathy.
- (iii) failure to take responsibility for behaviour.
- (iv) internationality – characterized by the violation of socially acceptable rules and norms.
- (v) poor school attendance.
- (vi) extreme timidity and anxiety.
- (vii) excessive nail biting.
- (ix) thumb sucking., biting the lips, scratching the nose, pulling or twisting the hair.
- (x) excessive shyness.

Educational implications:

Meeting the educational needs of children with developmental disabilities

Children with physical disability

- For children who have only physical impairment, the curriculum and educational goals will be the same as for physically normal children.
- For children who have other handicaps in addition to physical limitations, for example, mental retardation, you will have to modify the activities in keeping with their level of intellectual functioning. Depending upon the extent of the handicap, the child may benefit from attending a special school rather than a regular school.

- While it is necessary to look for appropriate people or agencies for specific advice for children with physical disabilities, it is important to remember that if given ample opportunity to develop socially, emotionally, and educationally in as normal a fashion as possible, many children with physical handicaps can make healthy adjustments to their disabilities and become contributing members of the society

Children with mental disability

- Mental retardation is not mental illness. Children with mental retardation learn in the same way as other children, but the learning takes place slowly. Therefore, instruction and training take longer.
- Children who have mild and moderate degree of retardation can be taught along with other children without much difficulty. Severely and profoundly retarded children will benefit more from instruction in a special school.

Children with socio-emotional difficulty

It is important to remember that the child cannot be directly blamed for the problem. There is usually some underlying factor that causes the problem behaviour and if that factor is identified and treated, the problem behaviour can be controlled or minimized. Strategies for managing behaviour problems include

- Observe carefully the circumstances of the child's unacceptable behaviour
- Try to understand why the child behaves as he/she does
- Set a reasonable goal for improvement based on the child's immediate needs and developmental level
- Plan to work towards the goal in small steps, always rewarding good behaviour and ignoring bad behaviour, use concrete rewards
- After the child's behaviour has improved, gradually move towards a more natural way of relating with the child
- The important point to remember when modifying the child's behaviour is to be consistent in your response. Avoid the use of punishment as this will certainly aggravate the problem

SELF ASSESSMENT EXERCISE I

Describe the strategies that a caregiver can use to manage children with behaviour difficulty

6.0 CONCLUSION

In this unit, you learnt about the characteristics of children with developmental anomalies with focus on those with physical, mental and socio-emotional disabilities.

7.0 SUMMARY

In this unit, you have learnt that children with physical disability tend to show the following characteristics: disorder of movement and posture, lack of coordination, loss of consciousness, convulsive movement, stiffness of the neck, and rigidity of the spinal column. You also learnt that children with mental disability tend to show certain characteristics some of which are that the child's head may look too small or too large for his/her size, slanting eyes, a narrow forehead and a protruding tongue, dull expression in their eyes, poor ability to pay attention to a task, may show behaviors such as unprovoked aggression, temper tantrums, stubbornness, withdrawn behaviour or resistance to new situations, difficulty in skills or movements involving fingers and wrists, difficulty in moving both arms at the same time, difficulty in learning. You equally learnt that children with socio-emotional disability tend to show the following characteristics: underdeveloped conscience, lack of empathy, failure to take responsibility for behaviour, internationality, poor school attendance, extreme timidity and anxiety, excessive nail biting, thumb sucking., biting the lips, scratching the nose, pulling or twisting the hair.

In the next two units being the last in this course, we shall discuss two contemporary early childhood models, Maria Montessori and Reggio Emilia, and their contribution to early childhood education.

8.0 TUTOR MARKED ASSIGNMENT

1. List five characteristics of children with physical disability
2. Mention and describe five characteristics of children with mental disability
3. List five characteristics of children with socio-emotional disability
4. Imagine that you are working as an educator in a child care centre. A mother of a severely retarded six-year old child comes to you for help. She has totally given up hope in her child. She is depressed and does not think her child can do anything. What advice would you give to the mother?
5. Imagine that you are a teacher in nursery school. One child in the school throws a tantrum whenever he wants to get his way. You have called her parents for a discussion. When you ask them as to how they deal with the child's behaviour, they replied: "oh! When he does something like that, we do as he wants. It is so much simpler to agree with him. At least there is peace after that". How would you respond to the parents' statement?
6. Observe a child of between ages 3 and 5 whom you are suspicious of having mental retardation. Write a 1-page report of your observation giving reasons to support your claim

9.0 REFERENCE/FURTHER READING

India Gandhi National Open University, DECE 3, Children with Special Needs

UNIT 4 CONTRIBUTION OF MARIA MONTESSORI TO THE DEVELOPMENT OF EARLY CHILDHOOD EDUCATION

CONTENTS

- 1.0 Introduction
- 2.0 Objectives
- 3.0 How to Study this Unit
- 4.0 Word Study
- 5.0 Main body
 - 5.1 Brief History of Maria Montessori
 - 5.2 Basic Ideas in Maria Montessori's Educational Philosophy
 - 5.3 Maria Montessori's Model of early childhood education
 - 5.4 Merit and Demerit of Montessori method
- 6.0 Conclusion
- 7.0 Summary
- 8.0 Tutor Marked Assignment
- 9.0 Reference /Further reading

1.0 INTRODUCTION

How have classical and contemporary theories of development informed some examples of quality early childhood programmes today? How have the developers of these models conceptualized programmes of high quality for young children? In the next two units, two early childhood programmes will be described. State the two programmes beginning with the Montessori approach.

2.0 OBJECTIVES

At the end of this unit, you should be able to:

- narrate Maria Montessori's life history;
- describe the basic ideas in Maria Montessori's model of early childhood education;
- explain the contribution of Maria Montessori in the development of early childhood education ; and
- discuss the merits and demerit of Maria Montessori's method

3.0 HOW TO STUDY THIS UNIT

- i. Begin by reading the list of sub-heading to see what the unit will cover.
- ii. Read the main body carefully
- iii. Attempt the self-assessment exercise after each main topic.

4.0 WORD STUDY

- Remedy:** A way of dealing with or improving something unpleasant
- Predecessor:** A person who did a job before somebody else
- Didactic:** Designed to teach people a moral lesson rather than letting them find out for themselves.
- Potential:** That could develop into something or could be developed in the future

5.0 MAIN BODY

5.1 Brief History of Maria Montessori (1870-1952)

Maria Montessori, whose method has become equivalent to education in the preschool years, was born in Italy in 1870. She was the first woman to receive a medical degree from the University of Rome. While working for her medical degree, Montessori became interested in mentally retarded children and developed teaching materials and methods to facilitate learning. Thus, began her fame as an educator. She was convinced that education rather than physical or mental treatment was the remedy for their retardation. On being successful with them, she tried new materials and methods and worked with normal children. She argued that if retarded children could progress by the use of her methods, one could do much more for normal children in a properly designed educational environment. She put her ideas to test while working with slum children of Rome in 1907, employing the teaching materials she had fashioned and her success in this was a turning point in her career. She gave up her medical practice for traveling, lecturing, establishing schools and teacher training colleges and conducting training courses.

Some professional predecessors whose work and ideas helped and inspired Maria Montessori included Itard, a French physician; Seguin, Itard's student and Jacques Rousseau, a philosopher and educational theorist; Pestalozzi, an educational thinker; and Friedrich Froebel, an educational thinker and practitioner who was the father of kindergarten. As Maria Montessori studied the work of these and other scholars, she noted the persistent emphasis on the child's ability to realize his /her potential if he or she is properly guided and directed. She diligently studied child psychology, anthropology and philosophy and thus developed a method of scientific observation of children. Such well-known scholars as Freud, Piaget & Erikson acknowledged her contribution in early childhood education. In 1907 her method was explained in a book the 'Montessori Method'. Three key elements - the Child, the Directress (Teacher) and Prepared Environment were presented as the focus of the approach. They form a unity in the education of the child.

SELF ASSESSMENT EXERCISE I

List at least four sources through which Maria Montessori's work was inspired

5.2 The basic ideas in Maria Montessori's educational philosophy

The Child

Like Froebel, she believed that education must help in the complete unfolding of the child's individuality. Suitable environment should be provided so that the child may grow and develop her potentiality. She said: 'the school must permit free, natural manifestations of the child if he is to study in a scientific manner'.

She was against material rewards and punishment. According to her, material rewards are unnatural incentives and punishments lead to forced efforts on the parts of the child. Therefore, she believed that the development that comes with their help will also be unnatural.

She believed that every child is unique and the rate of progress is also different for each child. Collective methods of teaching crush the child's individuality, she treated each child as a separate individual and recommended that the child should be helped and guided in a manner that helps in proper growth and development. Thus the teacher's strategy must be geared to each child's developmental level, interests and needs. Montessori shifted the emphasis from teaching to learning. She believed that self-education is true education. It was important to help the child to learn rather than making her acquire information through formal studies.

The first six years of life is the most crucial period of a child's life when the teacher can capitalize on the natural energy of children.

Montessori asserted that the senses are the gateways of knowledge. On their training and development depends the acquisition of knowledge throughout life. She pointed out that the senses are very active during the early years and a lot of learning takes place during this period.

She also attached importance to motor and physical development as a part of the early education of children. She believed that fostering motor development would facilitate other activities like writing and drawing.

The Prepared Environment

The prepared environment focuses on an organized and coordinated set of materials and equipment calculated to aid significant learning in the child. The environment is prepared based on the child's need, it is well ordered physically and conceptually to give meaning and relevance to the child's world. The following should be provided within the prepared environment:

- Freedom of movement: Everything is to be tailored to the child's size, needs and interest to enhance movement.

- Order and structure: The learning materials have to be well-ordered, well-kept and presented in such a way to lead to greater refinement and control
- Reality and nature: The young child should be free to explore nature and to observe the harmony and order revealed in nature. Reality is practicalized with the use of tools and other equipment by the children in their daily classroom activities.

The Teacher

Montessori replaces the word teacher by the word directress, as she thinks that the function of the teacher is to direct and not to teach. The motto of the directress should be: 'I must diminish, to let you grow'. She suggested that a teacher should care for the child like a gardener who cares for plants, so that the natural growth of the child is properly guided in the process of unfolding itself. The directress should have an intimate knowledge of the mind and character of each child. The teacher is more a resource person and catalyst for progress who generates emotional support, helpfulness and consideration for the child. The teacher is expected to construct each child's individual learning activities to enable him/her to progress at his/her own rate. The teacher is discouraged from comparing one child with another. It is her responsibility to see that learning materials are carefully arranged and that she does not give in to authoritarian teaching, which is capable of producing failure, rebellion and aggression. Montessori condemned the use of "don'ts" as a means of enforcing discipline. She recommended experimentation as a way of observing children's reactions to various materials. Thus, those that are poorly received by children are discarded and withdrawn. The teacher has to be a model in all things for children to copy; in temperament, language, and organization. In order to imbue children with order, the teacher must herself be orderly and attractive, and must always maintain dignity. Everything must be well-organized, clean, attractive and in good repair and well kept. The teacher should seek to motivate the children through the use of enticing, interesting and stimulating activities. The teacher must not interrupt the child with praise, comments or special assistance. She must refrain from creating dependency relationships with children as is practiced in conventional nursery and kindergarten schools. Rather a strong relationship should exist between the child and the learning material rather than between the child and the teacher as is the case in traditional nursery situations.

SELF ASSESSMENT EXERCISE II

Briefly describe the three key elements in Montessori's method

5.3 Maria Montessori's Model of early childhood education

The curriculum

The Montessori curriculum is divided into three primary components: motor education, sensory education and language or intellectual education. The classroom is described as a prepared environment with carefully sequenced and structured

materials for the child to be introduced to by the teacher followed by the opportunities to select materials in independent work.

Motor education: The Montessori classroom is organized with the intent that children are free to move about during the day. Fine motor skills are developed through the many sensorial materials as well as work in the area of practical life. All the curriculum components—sensorial, mathematics, language, and practical life—are focused on concrete objects and activities that use fine motor skills and a sense of order. In the practical life curriculum, children learn such tasks as washing tables, pouring materials, sweeping and polishing shoes which involve the primary movements of everyday life, self care, management of the household, manual work, gymnastic exercises and rhythmic movements as categories of the motor education.

Sensory education: Manipulative or didactic materials are used for sensory education. The sensorial curriculum includes a large number of sets of materials that promote seriation, classification, and conservation activities in a variety of media. The materials are sequenced according to difficulty with control of error being a primary objective. In addition to a set of cylinders that vary in dimension and height, sensorial materials include the cube tower, broad stair, long rods, color tablets, binomial and trinomial cubes and constructive triangles.

Language or intellectual education: The sensorial materials are part of intellectual education and vice versa. The teacher engages in careful pronunciation of words as he or she talks to the children. Likewise, when giving lessons in the use of concepts or materials, the teacher consistently uses words for physical dimension such as large, small, thick, thin, when introducing and conducting further lessons using didactic materials. The three-part lesson also exemplifies how the teacher uses language in a consistent manner to guide the child. In a three-part lesson, the teacher first shows and names a concept or material. In the second part, the teacher asks the child to ‘show me’ or ‘give me’ the material being learned. Finally, in the third part of the lesson, the child is asked to name the material being learned. For example, when learning the concepts of large and small, the teacher would first say, ‘this is the small ball’. Next the teacher would say ‘show me the small ball’. Finally the teacher would ask the child to name the small ball. Writing and reading activities and material are also carefully sequenced by difficulty. Preparation for writing includes exercises to develop fine motor skills in preparation for learning to write. At the same time, exercises to establish visual-motor understanding of alphabet letters and how to form them are introduced. Finally, exercise for the composition of words to include sounding out letters in a word and writing the words are introduced. Materials used for reading and writing includes sandpaper alphabet letters, movable alphabets for spelling and writing materials such as papers and pencils. After the child is familiar with the alphabet and can spell and write words independently, reading and writing are expanded to writing sentences and reading simple books (Orem, 1966).

The concept of children's house

Children's house is the name given by Montessori to a school for young children. The original Montessori house consisted of a set of rooms for intellectual work, for individual play and sleep, a clubroom for games and music, a dining room, a dressing room, a garden. The activities organized in the house for children aim at their all round development. Montessori developed her own educational materials, borrowing from Froebel and Seguin. The Montessori system of education relies heavily on these educational materials and apparatus. The materials are mainly of three types: those for training of senses, those that teach practical skills, and those that help children to adapt themselves to the needs of school life.

Montessori activities are arranged in a series from easy to difficult. The emphasis is on encouraging the child to discover and understand concepts by herself. For example, experience with building blocks of different shapes and sizes gives opportunity to perceive length, breadth, and thickness. Arranging cylindrical pieces of the same height but different diameters in an order of increasing diameter helps children to understand concept of relative size. Similarly, at first the children associate words with their sensory experience and gradually they acquire a descriptive vocabulary. Among other activities are fastening and unfastening buttons, hooks, and laces. Putting the articles in a room in order, setting the table, moving chairs quietly.

Special emphasis has been in her teaching strategy to read and write. Her educational apparatus provides for properly graded and correlated exercises that lead to reading and writing.

She has provided practical exercises in her school, which enable children to learn habits of cleanliness and order. The students learn the lesson of dignity of labor and self help by attending to their needs themselves.

Social values are also stressed in the children's house. Children serve lunch, eat together and later clean the plates. Many other activities are also performed cooperatively.

The Montessori system is child-centered. The child is free to choose the activity she desires. Yet, there is structure with freedom. The educator structures the activities so that their performance leads to a certain development, but that is all she does. The child is free to proceed through the activity at her own pace. The activities are challenging as well as interesting. Individualized teaching is the focal point of the Montessori method i.e., teaching strategy is evolved individually for each child, based on her needs and interests. This enables the child to progress at his or her own pace and promotes optimal development. Her method is a reaction against collective teaching.

Montessori did not approve of fairy tales for children, as she felt that these tend to confuse children and hinder them in the process of adjusting themselves to the real world.

SELF ASSESSMENT EXERCISE III

Briefly outline the major components of Montessori's curriculum

5.4 Merits and Demerits of Montessori Method

Merits of the Montessori Method

Montessori ushered in a new era in early childhood education. She writes: 'today there stands forth one urgent need- the reform of methods in education and instruction, and he who struggles towards this end is struggling for the regeneration of man'. To her the child was god. Many preschools today are based on the Montessori Method. Others, while they have not adopted her approach totally, use the educational materials in one form or the other. The child centeredness of her method, the freedom given to the child, the relatively few constraints on learning yet the presence of a person to guide the child, helps in the total development of the child. While her stress on realistic methods of teaching through the senses and through concrete experiences is reminiscent of Pestalozzi and Froebel, her method of education gives freedom to the child and is more individualistic in nature.

Limitations of the Montessori Method

There is a key reliance on the educational apparatus and materials. Beyond a point, this limits the child as well as the teacher. The child's expression is limited to what is possible with these materials. The pupil is expected to do different types of exercises with the help of the apparatus and the teacher also has to teach through the didactic apparatus, with the result that the free expression of the children is limited as is the work of the teacher. Also Montessori equipment is very expensive. Individualizes teaching, which is the hallmark of her method, requires that the educator work with a fewer number of children. This is not always possible in our preschools. The teacher in Montessori system takes care in keeping records of the height, skull and limbs of each individual child. She hardly observes temperament and other emotional traits.

SELF ASSESSMENT EXERCISE IV

Briefly discuss two merits and two demerits of Montessori method

6.0 CONCLUSION

Although her methods and techniques were formulated many decades ago, Maria Montessori still remains today the single best source for practical ways in which to

stimulate the mental development of the pre-school children. In this unit, you were exposed to the contribution of Maria Montessori in the development of early childhood education, focusing on her brief history, basic ideas in her educational philosophy, her model of early childhood education, as well as merits and limitations of her educational method.

7.0 SUMMARY

In this unit, you have learnt that:

- Maria Montessori was medical doctor who became interested in mentally retarded children and developed teaching materials and methods to facilitate learning. She reckoned that education rather than physical or mental treatment was the remedy for mental retardation. On being successful with them, she tried new materials and methods and worked with normal children and created a learning environment through her approach called the ‘Montessori method’.
- She believed that education must help in the complete unfolding of the child’s individuality and that a suitable environment should be provided so that the child may develop her/his potential
- Three key elements - the Child, the Directress (Teacher) and Prepared Environment are the focus of the Montessori method
- She held that the method of instruction must be geared to each child’s level of development, interests and needs
- She was against material rewards and punishment and regarded the first six years of life as the most crucial period of a child’s life and that the teacher can capitalize on the natural energy of children as their senses are very active during the early years and a lot of learning takes place during this period. She also attached importance to motor and physical development as a part of the early education of children
- The primary components of Montessori curriculum are: motor education, sensory education and language or intellectual education.
- The Montessori system of education relies heavily on educational materials and apparatus comprising those for training of senses, those that teach practical skills, and those that help children to adapt themselves to the needs of school life
- The Montessori system is child-centered and the child is free to choose the activity he/she requires
- The role of the teacher is to provide children with suitable opportunities to think for themselves

8.0 TUTOR MARKED ASSIGNMENT

1. Trace the antecedents of Maria Montessori’s interest in early childhood education

2. Describe in detail the basic philosophy in Maria Montessori's early childhood education
3. Describe the main features of Maria Montessori's system of education
4. Discuss ways Montessori Method has contributed to development of present day early childhood education in Nigeria. Which aspects of her method would you recommend, and why?

9.0 REFERENCE/FURTHER READING

Wortham S.C (2006). *Early Childhood Curriculum: Developmental Bases for Learning and Teaching*. New York: Pearson Prentice Hall

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UNIT 5 **CONTRIBUTION OF REGGIO EMILIA TO THE DEVELOPMENT OF EARLY CHILDHOOD EDUCATION**

CONTENTS

- 1.0 Introduction
- 2.0 Objectives
- 3.0 How to Study this Unit
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 - 5.1 The evolution of Reggio Emilia model of early childhood education model
 - 5.2 Basic ideas and principles in Reggio Emilia's educational philosophy
 - 5.3 Reggio Emilia's Model of Early Childhood Education
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1.0 INTRODUCTION

In the last unit, you learnt about the contribution of Maria Montessori to the development of early childhood education. In this unit, you will learn about Reggio Emilia model and how it contributed to early childhood education.

2.0 OBJECTIVES

At the end of this unit, you should be able to:

- trace the evolution of Reggio Emilia early childhood education model;
- describe the basic ideas and principles of Reggio Emilia educational philosophy; and
- explain Reggio Emilia's model of early childhood education

3.0 HOW TO STUDY THIS UNIT

- i. Begin by reading the list of sub-heading to see what the unit will cover.
- ii. Read the main body carefully
- iii. Attempt the self-assessment exercise after each main topic.

4.0 WORD STUDY

Protagonist: The main character/person in an event e.g. pillar, play etc.

Piazza: A public square, especially in an Italian town.

Spontaneous: Not planned, done because you suddenly want to do it.

Hypothesis: An idea or explanation of something that is based on a few facts that has not been proven to be true or correct.

5.0 MAIN BODY

5.1 The evolution of Reggio Emilia model of early childhood education

Early childhood care education in Italy has a long history that began as charitable and religious centers for infants and preschool children in the 19th century. After 1867, Froebel's kindergartens began to have an influence followed by progressive educators at the beginning of the 20th century. During the first half of the 20th century, preschool education was controlled by the Catholic Church. It was not until the end of World War II that parent-run schools within municipal systems were established.

The evolution of the Reggio Emilia preschool model was initiated in the days immediately after the end of the World War II in 1945. In the following months, Loris Malaguzzi and local parents established the first school in a war-torn country without resources. Bricks were salvaged from bombed houses, and the first buildings were constructed by the parents. From these first tentative efforts, the system of Reggio Emilia schools was established. In the first years, educators and parents worked to develop the program based on projects designed by the teachers. After Malaguzzi visited the Rousseau Institute in Geneva, Switzerland, the schools began to reflect Piaget's theory and perception of children's cognitive development. Despite ongoing struggles for many years with the Catholic Church over how schools would be administered, in 1967 all the parent-run schools came under the administration of the municipality of Reggio Emilia and 1972 the rules and regulations developed to govern the parent-run schools of Reggio Emilia were passed by the city council. This milestone marked acknowledgement of the Reggio Emilia approach after 10 years of development. In the past 30 years, the schools of Reggio Emilia have continued to evolve and develop. The model has been influenced by the work of contemporary theorists and writers that include Urie Bronfenbrenner, Lev Vygotsky, Erik Erikson, Howard Gardener and Jerome Bruner. The model has gained international recognition, and visitors have travelled from all over the world to experience and understand this model for early childhood education.

The Reggio Emilia model was first conceptualized using Piaget's theory of cognitive development. The child's development in quality of thinking helped in designing the school in which children are active learners. However, as Reggio Emilia educators continued to study Piaget's perception of constructivism, they had some concerns about his approach. They felt that Piaget's theory isolates the child and undervalues the adult's role in promoting cognitive development. They were also concerned about social interaction and that cognitive, affection, and moral judgment were described as parallel tracks. Therefore, in addition to understanding and incorporating Piaget's theory, model developers incorporated Vygotsky's work. They were particularly interested in Vygotsky's theory on how thought and language work together when the

child is forming ideas and making a plan of action. Further, they were interested in Vygotsky's zone of proximal development, the distance between the child's current capacities and the child's level of potential development. The contributions of these two thinkers and others mentioned earlier guided the evolution of the Reggio Emilia model. The theoretical bases of the Reggio Emilia model are focused on how the young child learns. Reggio Emilia schools used the term 'active education' using Piaget's description of cognitive development as a process of ongoing adaptation to the environment. The schools are considered by Malaguzzi as amiable because they encourage movement, inter-independence and interaction. Emphasis is placed on the relationships between teachers, parents and children in the active process of learning.

SELF ASSESSMENT EXERCISE I

Identify six eminent personalities that guided the evolution of Reggio Emilia model

5.2 The basic ideas and principles in Reggio Emilia's educational philosophy

The Reggio Emilia model can be described in terms of eight principles (Cadwell, 1997)

1. The child as protagonist: children are strong and capable. All children have preparedness; potential, curiosity and interest in constructing their learning, negotiating with everything their environment bring them. Children, teachers and parents are considered the three central protagonists in the educational process.
2. The child as collaborator: education must focus on each child in relation to other children, the family, the teachers and the community rather than on each child in isolation. There is an emphasis on work in small groups. This practice is based on the social constructive model that supports the idea that we form ourselves through our interaction with peers, adults, things in the world and symbols
3. The child as communicator: this approach fosters children's intellectual development through a systematic focus on symbolic representation, including words, movement, drawing, painting, building, sculpture, shadow play, collage, dramatic play and music which lead children to surprising levels of communication, symbolic skills and creativity. Children have the right to use many materials in order to discover and communicate what they know understand, wonder about, question, feel, and imagine. In this way, they make their thinking visible through their many natural 'languages'. A studio teacher, trained in the visual arts, works closely with children and teachers in each school to enable children to explore many materials and use a great number of languages to make their learning visible.
4. The environment as third teacher: the design and use of space encourage encounters, communication and relationships. There is an underlying order and

beauty in the design and organization of all space in a school and the equipment and materials within it. Every corner of every space has an identity and a purpose, is rich in potential to engage and to communicate, is valued and cared for by children and adults.

5. The teacher as partner, nurturer, and guide: the teachers facilitate children's exploration of themes; work on short and long term projects and guide experiences of joint, open ended discovery and problem solving. To know how to plan and proceed with their work, teachers listen and observe children closely. Teachers ask questions; discover children's ideas, hypotheses and theories; and provide occasions for discovery and learning.
6. The teacher as researcher: teachers work in pairs and maintain strong, collegial relationships with all other teachers and staff; they engage in continuous discussion and interpretation of their work and the work of their children. These exchanges provide ongoing training and theoretical enrichment. Teachers see themselves as researchers preparing documentation of their work with children whom they consider researchers. The team is further supported by a pedagogical coordinator who serves a group of schools.
7. The documentation as communication: careful consideration and attention is given to the presentation of the thinking of the children and the adults who work with them. Teachers commentary on the purposes of the study and the children's learning process, transcriptions of children's verbal language, photographs of their activity and representation of their thinking in many media are composed in carefully designed panel or books to present the process of learning in schools. The documentation serves many purposes. It makes parents aware of their children's experience. It allows teacher to better understand children, to evaluate their own work and to exchange ideas with other educators. Documentation also traces the history of the school and the pleasure in the process of learning experiences by many children and their teachers.
8. The parent as partner: parent participation is considered essential and takes many forms. Parents play an active role in their children's learning experience and help ensure the welfare of all the children in the school. The ideas and skills that the families bring to the school and even more important, the exchange of ideas between parents and teachers favor the development of a new way of educating, which helps teachers to view the participation of families not as a threat but as an intrinsic element of collegiality and as the integration of different wisdoms.

In keeping with these principles, the Reggio Emilia's contribution in the development of early childhood education will be discussed in terms of the environment, the role of teachers, the role of parents, the role of the child, the curriculum and assessment.

SELF ASSESSMENT EXERCISE II

Explain the importance of the child's role in Reggio Emilia as described in the eight principles of preschool educational philosophy

5.3 Reggio Emilia's Model of Early Childhood Education

The environment: Reggio Emilia schools are developed to encourage social and cognitive development. The physical environment is planned to facilitate interactions between children as well as between teachers and parents. The main common space, a piazza, is surrounded by areas used for different purposes that open to the piazza. An important space is the atelier, described as a workshop or studio, which is used to work on projects and to explore new and familiar materials and tools. In addition, each age group has a large classroom with a mini-atelier attached. Glass is used extensively to connect interior spaces as well as create continuity between the indoor and outdoor environment. There are also spaces where children can spend time alone. The arrangement is designed to facilitate constructive exploration of materials and for work on projects and themes. A major purpose of the space is to display and document the children's work.

The role of the teaching staff: There are three adult roles in Reggio Emilia; the atelierista, the pedagoga and the teachers. Adults in each of these roles interact with the children, parents and community and each other. The atelierista uses a background in art to work with children in the atelier as they engage in painting, drawing, working with clay, and using other techniques and materials. The atelierista helps children communicate and represent what they are learning in their project work. The atelierista also talks daily with pedagogisti and teachers to help them understand the children's artwork and how they learn. The pedagogisti are responsible for coordinating communications with parents and visitors as well as engaging teachers in new advances in theory and practice. The pedagogisti serve as facilitators for the exchange of ideas between teachers both within a school and among different schools. The teacher's role is to work with the children. Teachers focus on children's work rather than as instructors to the children. Teachers and children are equally involved in the progress of work, materials and techniques being used, and ideas being explored. Classroom teachers work with the atelierista as partners in facilitating children's work. They work as partners in the exchange of ideas of how to further children's work with materials and discussions.

The role of the child: A major portion of children's time is spent on project work. They use art materials to represent what they understand and how they are using creativity to reconstruct knowledge. These representations and communications have been described as the languages of children. In addition, to project work, children engage in all types of spontaneous play, blocks, acting out plays, and outdoor play. Some children also engage in art activities during free play periods. Children spend much of the day interacting and socializing with classmates and adults.

The curriculum: The curriculum of Reggio Emilia is described as emergent. That is, the teachers do not plan objectives and learning activities in advance. Rather they first study the characteristics of the children as well as their aptitudes, needs and interests. In addition, the staff meets weekly to continue sharing knowledge of the children in

their planning. In planning the curriculum, teachers lay out general educational objective. They formulate hypothesis of what could happen based on their knowledge of the children. The relationships between children, parents, the community, and culture are also considered. Based on children's backgrounds and interests, curriculum themes or projects are initiated. Thereafter the processes of interactions with children and adults, observation and documentation of children's work and discussions among all the participants to include staff members, parents and children are used for ongoing planning and implementation of the curriculum. Children are equal participants in planning the curriculum and evaluating the progress of the work. Each project can start from a suggestion, a child's idea or a significant event.

Assessment: Much has already been said about documentation, the record of children's work, products of projects or themes are reflected in the children's artwork. In addition, ongoing discussion between staff members and the children provide continuous assessment of the curriculum and the children's progress. Teachers and atelieristas keep daily anecdotal records of what the children are doing and the steps that will be taken in guiding the children through further efforts. The display of children's work on the walls of the school plus discussions and written information form the assessment of children's progress as well as self-evaluation by children and teachers.

SELF ASSESSMENT EXERCISE III

Describe the major tenets of Reggio Emilia model of early childhood education

6.0 CONCLUSION

The Reggio Emilia system of education has been succinctly described as a collection of schools for young children in which each child's intellectual, emotional, social, and moral potentials are carefully cultivated and guided. The principal educational vehicle involves youngsters in long-term engrossing projects, which are carried out in beautiful, healthy, love-filled setting (Wortham, 2006). The Reggio Emilia has been of interest to educators from many countries. The approach has been implemented in the United States for over a decade. In this unit, you were exposed to Reggio Emilia model and how it contributed to the development of early childhood education, with focus on the evolution of Reggio Emilia model, the basic ideas in Reggio Emilia model, and contribution of Reggio Emilia's model to early childhood education.

7.0 SUMMARY

In this unit, you have learnt that

- The evolution of the Reggio Emilia preschool model was initiated in the days immediately after the end of the World War II in 1945. the first buildings were constructed by the parents. In 1967 all the parent-run schools came under the administration of the municipality of Reggio Emilia and 1972 the rules and

regulations developed to govern the parent-run schools of Reggio Emilia were passed by the city council. The model has been influenced by the work of contemporary theorists and writers that include Urie Bronfenbrenner, Lev Vygotsky, Erik Erikson, Howard Gardener, Jean Piaget, Leu Vygotsky

- The Reggio Emilia model can be described in terms of eight principles: a child as a protagonist; a child as a collaborator; a child as communicator; an environment as a third teacher; a teacher as a partner, nurturer, and guide; a teacher as a researcher; documentation as communication; a parent as a partner.
- Reggio Emilia model contributed to the development of early childhood education in terms of the environment, the role of teachers, the role of parents, the role of the child, the curriculum and assessment.

8.0 TUTOR MARKED ASSIGNMENT

1. Trace the evolution of Reggio Emilia early childhood education model
2. Describe the six basic principles of Reggio Emilia educational philosophy
3. Describe the main features of Reggio Emilia system of education

9.0 REFERENCE/FURTHER READING

Wortham S.C (2006). *Early Childhood Curriculum: Developmental Bases for Learning and Teaching*. New York: Pearson Prentice Hall

ANSWERS TO SELF ASSESSMENT EXERCISES**MODULE 1****UNIT 1 NATURE AND CONTEXT OF CHILD DEVELOPMENT****SELF ASSESSMENT EXERCISE I***i. Explain the meaning of childhood***Answer:**

Childhood is that period of development between birth to puberty years. This could be between the ages of 0-10 or 0-12. It is also a period where humans are largely dependent on others e.g. parents, care-givers, teachers to protect them and take care of them.

It could be three phases.

- I. Early childhood (0-3 years)
- II. Middle childhood (3-5 years)
- III. Late childhood (8-12 years)

*ii. What is early childhood?***Answer:**

Early childhood is that period of development between birth to 8 years; the period is a very crucial one for the development of children because it is the foundation and development of many fundamental skills proceeds at a very fast rate. During this period environmental enrichment aids development and deprivation of some necessities like food, health care, nurturance, love etc hinders proper development. Likewise, unhealthy living conditions and exploitative working conditions have a long lasting negative impact on development.

*iii. In your own words attempt a definition of early childhood education***Answer:**

Early childhood education is the type of education that children between the age of 2 - 3/4 years receive. It is semi-formal in nature and takes place outside the home before children start proper primary schooling. The learning activities are arranged in a play-like manner and involves a lot of guided play that is intended to help children learn.

SELF ASSESSMENT EXERCISE II***Trace the changing views of childhood from medieval period to present***

In the middle ages children did not have the kind of childhood we have today because they engaged in activities of livelihood to provide food and clothing needs for survival. The situation began to change after Jean Jacques Rousseau wrote a novel called Emile in 1762. In the book, she portrayed that child development is a separate stage in life.

-Thus the 18th century was seen as the period of enlightenment when humanity emerged from darkness.

SELF ASSESSMENT EXERCISE III***Trace the origin of Early Childhood Education in Nigeria******Answer:***

According to Maduewesi (1999), the origin of early childhood education in Nigeria dated as far back as the early 1960 during the colonial period of government in Nigeria. Those who associated with the missionaries were the first to benefit from early childhood education.

In the 1970s following the Nigerian Civil war; there was an active growth of nursery schools in the country due to the demand for such facilities. In addition, were the following reasons:

- i. There was a general believe that nursery school gives a head start for primary education; so many survivors of the civil war in the former war zones wanted their children to make up for lost time.
- ii. The uneducated nouveau-riche abroad were competing to catch up through their children
- iii. Some educated Nigerian families who travelled to Western European countries saw such practices abroad and on return required similar services in Nigeria
- iv. A growing awareness of new research findings showing the relevance of early childhood education
- v. Also, there was an erroneous view that children who attend nursery schools are automatically superior to academic achievers over their peers who do not.

UNIT 2 PHILOSOPHICAL BASIS OF EARLY CHILDHOOD EDUCATION

SELF ASSESSMENT EXERCISE I

Compare Froebel's views on the aims and objectives of early childhood education with that of Dewey

Answer:

Froebel (1782-1852) aims and objectives of early childhood education have strong religious influence and his theory was based on his own childhood experiences in addition to working with children. He believes that the aim of education is to teach man to become an intelligent and thinking being. He advocated the use of play and designed toys for toddlers and children under six years. He called them kindergarten or child's garden.

Dewey (1859-1952) on concept of education is based on the scientific approach, studying the behaviour of children in his school to determine the best way to make provision for their education. He was concerned with the child and the type of knowledge and experience which adults expect the child to acquire. He discovered that learning in early childhood takes place better if practicalized. Dewey did not specify the aim of education like Froebel did, but he suggested that project method should precede the separate subjects study in children education.

SELF ASSESSMENT EXERCISE II

Discuss the aims and objectives of early childhood education as expressed in the National Policy on Education

Answer:

The National Policy on Education (NPE) defined early childhood education or pre-primary as "the education given in an educational institution to children aged 3 to 5, prior to them entering primary school."

The objectives of early childhood education as listed in the NPE are as follows:

- a) Effect a smooth transition from the home to the school.
- b) Prepare the child for the primary levels of education.
- c) To provide adequate care and supervision to the child while their parents are at work.
- d) Inculcate social norms
- e) Inculcate in the child the spirit of enquiry and creativity through the exploration of nature, the environment, art, music and playing with toys etc.
- f) Teach cooperation and team spirit.
- g) Learn good habits, especially good health habits

- h) Teach the rudiments of numbers, letters, colours, shapes, forms, etc. through play (FME 2014)

SELF ASSESSMENT EXERCISE III

- i. Briefly explain the major functions of a daycare centre.*

Answer:

Day care centres are where children of working mothers are looked after while their mothers are at work. They are manned by illiterate or semi-literate nannies whose major works includes feeding the children, changing their nappies, putting them to bed, and other activities that are around the physical and emotional needs of the child in the absence of the mother.

- ii. List five objectives of kindergarten education.*

Answer:

- 1 – Friendliness and helpfulness in relationships with other children.
- 2 – Greater power to solve problems based on individual activities and group relationships.
- 3 – Respect for the rights, property and contribution of other children.
- 4 – Responsiveness to intellectual challenges.
- 5 – Achievement of good sensory-motor coordination.

UNIT 3 CONCEPTS OF GROWTH AND DEVELOPMENT

SELF ASSESSMENT EXERCISE I

Explain to a secondary school student the meaning of growth and that of development.

Answer:

Growth refers to quantitative changes that occur in an individual i.e. increase in the size of bodily dimensions such as height, weight, size. This means that growth is a physical occurrence in individuals. Development is qualitative changes that occur in an individual. Development is a progressive series of orderly coherent changes leading towards the goal of maturity. Development refers to changes in ability to function.

SELF ASSESSMENT EXERCISE II

Give two distinctions between growth and development.

Answer:

Growth brings about observable changes in the physical characteristics such as height and weight.

- Growth comes in stages i.e. pre-natal stage, infancy stage, childhood stage, adolescence stage, adulthood, and old age.
- Development cannot be directly observed, however, it can be measured indirectly.
- Individuals develop at different rates.

UNIT 4 PRINCIPLES OF GROWTH AND DEVELOPMENT**SELF-ASSESSMENT EXERCISE I**

Write short notes on the following:

Answer:

- Genes
- Chromosomes
- Phenotype.

-Genes: this is the unit of inheritance which determines the nature of a character that is inherited by an individual from the parents.

-Chromosomes: these are thread-like structures on which the genes are located. Chromosomes occur in pairs, one from the mother and the other from the father. Each chromosome is made up of protein units with DNA. The DNA provides the biochemical basis for the transmission of genetic material.

-Phenotype: This is the character actually expressed. It is influenced by the interaction of between the individual and the environment.

SELF ASSESSMENT EXERCISE II

i. Explain the principle of cephalo-caudal development.

Answer:

Cephalo-caudal development: 'cephalo' means head and 'caudal' means tail. The principle of cephalo-caudal development therefore means that growth and development proceeds region from the head to tail region.

ii. Explain the principle of proximo-distal development.

Answer:

Proximo-distal development: 'proximo' means central part, while 'distal' stands for periphery. This means that growth and development start from the central part of the

body towards the periphery. The principle of proximo-distal development shows that behaviour follows a sequence from general to specific, unselective to highly selective, concrete to abstract and unknown to known.

UNIT 5 THEORIES OF CHILD DEVELOPMENT

SELF ASSESSMENT EXERCISE I

Discuss the relevance of behaviouristic theory to child development.

Answer:

Behaviorists like Ivan Pavlov, John Watson, B.F. Skinner, and Albert Bandura believe that environment shapes the learning and behaviour of humans. Their theory is based on the nurture theory which had its roots in the philosophy of John Locke with the notion that children arrive in the world as blank slate. The teachers or educators will write on the slate as they are educating the child. They believe that reward and punishment play important role in shaping behaviour.

The behaviorists applied stimulus-response (S-R) theory to children and their development. For the the critical factors in growth and development are the environment and the opportunity to learn. Learning is continuous and results from the reward system in the environment. The direction of behaviour is shaped through control of the learning environment and the individual's experiences.

SELF ASSESSMENT EXERCISE II

Discuss the relevance of Maturationist theory to child development.

Answer:

Maturationists believe that development is a biological process that occurs automatically in predictable, sequential stages over time. G. Stanley Hall led the early observation of children to understand and subsequently describe the development of children. He was followed by his student Arnold Gesell who established the norms for the ages at which behaviours emerged in young children. They believed that learning occurs as a result of the individual child's biological timetable; biological readiness is seen as the most influential to learning.

Curriculum developers used Gesell's descriptions of children's maturity levels and readiness for learning at chronological ages to design appropriate curriculum for different grade levels.

SELF ASSESSMENT EXERCISE III

Compare and contrast Piaget's and Lev Vigotsky's viewpoints of constructivist theory to child development.

Answer:

The constructivist proposed that both biological and environmental factors affect human development in a reciprocal manner. The theory was advanced by theorists like Jean Piaget, Maria and Lev Vigotsky and they all view young children as active participants in the learning process but their focus and perspective differ.

Jean Piaget studied cognitive development and believed that children have an active role to play and the child's interaction with the environment and cognitive organization of experiences result in intelligence. The emphasis of this theory is on the child's thought processes when learning is occurring. He proposed a stage theory to explain cognitive development of children which shows that the child moves through the sensorimotor and preoperational stages to concrete operational stage.

-In the sensorimotor stage (0-2years) the child acquires information through physical actions and his five senses: touch, taste, smell, hearing and sight. The child uses abilities he was born with like looking, grasping, sucking and listening to learn more about the environment.

- in the preoperational stage (2-7years) the child is able to use symbolic thinking at play and other activities. They are able to use an object to represent something else such as pretending to be a doctor, mother etc, thus role playing is very important during this period.

-concrete operational (7-12 years) where the child is able to use logical thinking, can conserve and can learn using symbols.

Lev Vigotsky is also a constructivist theorist like Piaget and believed children construct knowledge. Whereas Piaget proposed that children construct knowledge from interaction with the environment; Vigotsky believed that physical and social interaction play a significant role in learning and development. The Adult serves as mediator and the other social environment include the child's family, school, community, culture and all the social context that a reached by the child.

SELF ASSESSMENT EXERCISE IV

How will knowledge of psychoanalytic theory help the teacher to understand child development?

Answer:

Psychoanalytic theory was postulated by Sigmund Freud (1856-1939) and is concerned with emotion, motivation, and personality development. Freud viewed children as having sexual energy which is biologically determined and environmental factors determine how the energy is invested and how children grow. He described child development as a series of stages which were outlined as oral, anal, phallic, latency and genital periods. All the periods fall within childhood except the genital stage.

Knowledge of the psychoanalytical theory helps the teacher understand child development. The theory explained how children move from one stage to the next as a result of both physical development and parental expectations. If the psychoanalytic stages are completed successfully, the result is a healthy personality and if on the other hand certain issues are not resolved at the appropriate age fixation can occur. Thus the theory provides the teacher with explanations of why some children may exhibit certain behaviours at certain times.

SELF ASSESSMENT EXERCISE V

Describe John Bowlby's contribution to social development theory

Answer:

John Bowlby theory proposed that early relationships with care-givers play a major role in child development and continue to influence social relationships throughout life. His contribution is best known as attachment theory where he did an extensive research on the concept of attachment. He described it as a “lasting psychological connectedness between human beings.” He believed in the psychoanalytic view that early experiences in childhood have an important influence on development and behavior later in life. He proposed four distinguishing characteristics of attachment:

1. **Proximity Maintenance**- The desire to be near to the people we are attached to
2. **Safe Haven** – Returning to the attachment figure for comfort and safety in the face of fear or threat
3. **Secure Base** – The attachment figure acts as a base of security from which the child can explore the surrounding environment
4. **Separation Distress** – Anxiety that occurs in the absence of the attachment figure

SELF ASSESSMENT EXERCISE VI

Explain the influence of microsystem and mesosystem environment on child development

Answer:

Urie Bronfenbrenner (1917-2005) is the proponent of Ecological system theory which explained how culture and the child's environment affect how a child grows and develops. Each level of the environment that influence children's development were labeled as the microsystem, the mesosystem, exosystem and the macrosystem. The child resides in the center of the systems; and his interaction with the system expands as the child develops and moves increasingly into the environment.

- The microsystem** is the small immediate environment the child lives in; e.g. their immediate family, care-givers and the school.
- **The mesosystem** reflects the interactions between the elements of the microsystem describing how the different parts of the microsystem work together for the sake of the child.

- **The exosystem** include other people or places that the child may not interact with often but still have a large effect on the child such as the parents' place of work, extended family members, neighborhood, mass media e.t.c.
- **The macrosystem** reflects the culture of the larger community in which the child lives. It is the largest and most remote set of people and things to the child but which still has a great influence over the child e.g. cultural values, the economy, wars etc. their effect on the child could be either positive or negative.

MODULE 2**UNIT 1 PHYSICAL DEVELOPMENT****SELF ASSESSMENT EXERCISE I**

Name seven gross motor skills and five fine motor skills that a child can perform at the infancy stage.

Answer:

Gross motor skills:

- Throwing objects
- catching
- jumping
- running
- walking
- climbing
- pulling

Fine motor skills:

- holding pencils
- drawing lines
- scribbling
- folding clothes
- zipping a zipper

SELF ASSESSMENT EXERCISE II

Mention six physical skills a child of two years can perform.

Answer:

- walking without assistance
- running
- climbing
- grasping pencils
- holding onto railings and advancing the same foot at a time.

SELF ASSESSMENT EXERCISE III

Describe the physical development of preschool stage.

Answer:

The preschool stage is the period prior to entering into primary school. As children move from toddlerhood to preschool years, they begin to lose their chubby appearance. Their bodies become more proportional as they get taller and thinner. In a slower rate of growing, they gain about three pounds a year and grow approximately two and a half inches.

SELF ASSESSMENT EXERCISE IV

Briefly describe the physical development of a seven-year-old child.

Answer:

During the primary years, children vary greatly in height and weight. They gain better control of their bodies as they continue to refine their gross and fine motor skills. They can hop, skip, climb, jump, run and dance and depending on their social and cultural context begin participating in sports like bicycling. Their fine motor-skills are also developed so they can write.

UNIT 2 COGNITIVE DEVELOPMENT**SELF ASSESSMENT EXERCISE I**

Describe specific behaviours that indicate cognitive development of an infant child.

Answer:

The infant child is at the sensorimotor stage of cognitive development and learns about his world by interacting with it through his senses of touch, smell, hearing, sight and feeling. The child relies on behavioural schemata to explore and understand the environment. The child understands the environment purely through inborn reflexes

SELF ASSESSMENT EXERCISE II

Describe cognitive development at toddlerhood stage.

Answer:

At the toddlerhood stage, the child enters the early part of preoperational stage of cognitive development, hence preoperational in thinking, that is, they can use symbolism or pretending. They are also able to represent objects and events mentally. Symbolic thought allows the child to mentally picture things that are not present. Young children who have achieved symbolic function can use art experiences especially scribbling, to represent things in their environment, such as houses, trees, flowers and people. Symbolism also allows them to engage in pretend play.

SELF ASSESSMENT EXERCISE III

What do you understand by egocentrism?

Answer:

Egocentrism in my own understanding is when one is limited to one's outlook or concern to one's own activities or needs, as opposed to caring about other people's needs.

SELF ASSESSMENT EXERCISE IV

Briefly describe the cognitive development of a preschool child.

Answer:

At this stage, the child moves from preoperational stage of cognitive development into the concrete operational stage. As they make this transition to concrete operations, the quality of their thinking changes. They cease evaluating situations based on perception and begin to use logic and mental operations to understand their experiences. The ability to conserve is the central characteristics that signals the child's achievement of the concrete operational stage.

SELF ASSESSMENT EXERCISE V

As a teacher, what advice can you give a parent who is considering sending his child to primary one.

Answer:

Before sending the child into primary one, it is important to help the child acquire the schemata that are necessary. Knowledge and skill taught at the right time stand a good chance of being mastered and used maximally.

UNIT 3 SOCIO-EMOTIONAL DEVELOPMENT**SELF ASSESSMENT EXERCISE I**

Describe the socio-emotional development at the infancy stage.

Answer:

Infants are intensely social, and their social development starts early. The process of attachment formation also starts early as newborns are able to distinguish faces and will gaze up at the care-giver who returns the gaze. Their first social interactions are extended as parents and other care-givers respond to their gazes, vocalizations and movements as if they intended to communicate. They enjoy increasing social interaction with others through babbling, smiling, and making gestures. Infants demonstrate emotional development when they cry from pain, or discomfort. Babies

show their emotions through kicking, arm waving, and making facial expressions; they hug, kiss, chew, or even bite on something to show affection. They show their fear to people or things by cringing, biting etc, all emotions are temporary and change suddenly.

SELF ASSESSMENT EXERCISE II

Briefly describe the socio-emotional development of the child at toddlerhood stage.

Answer:

The child has interest in watching other children. He had earlier played alone, but now begins parallel play and is still shy towards strangers. Socialization skills develop during this period from a meager sense of self to separating self from others. At this stage, emotional development can go from one extreme to another. One year olds seem amiable. At eighteen months, children begin to resist events; suddenly the eighteen-month old child would not let the mother out of sight. Two year olds express strong wishes and preferences; they express a great many “nos” as well as negative behaviour and willfulness. Emotions like pity, sympathy and a growing sense of caring begin to develop.

SELF ASSESSMENT EXERCISE III

As early childhood educator, how would you explain to parents the socio-emotional development of their 4-year old children.

Answer:

The four years old children are at the preschool stage and just leaving the toddler stage; they are beginning to mature in the ability to interact with others socially. Erikson and Piaget gave ideas of the social development of these age group in their preschool child theories. At this age the child requires more social reassurance and likes to interact with his peers. It is important for parents, teachers and other care-givers to understand that for the four years old this is a period of self assertion, thus they should understand the child’s need for social recognition and provide such opportunities for the child.

UNIT 5 LANGUAGE DEVELOPMNET

SELF ASSESSMENT EXERCISE I

Describe the language development of an infant from the moment the child is born to one-year-old.

Answer:

During this first year, infants engage in a wide range of vocalization – crying is the first of these. From birth till end of the month, the newborn engages in what has been called undifferentiated crying, that is, the adult listener cannot differentiate between cries of hunger, pain, fear, or general unhappiness. The second month shows the child developing differentiated crying- crying that is more distinguishable to the adult for example crying which can be interpreted as due to hunger, wetness or tiredness. At 3 months, the child begins cooing – a series of soft vowel sounds that seem to be produced when the baby is relaxed and contented. They also make gurgling sounds, which involve consonant sounds as well as vowel sounds. During babbling, especially in the second half of the first year, the infant begins to produce phonemes – the fundamental sound units of a language. Babbling, unlike cooing, is highly structured and is made up of consonant and vowel sounds combined in syllables like ‘di’ and ‘ka’. Through interaction with adults, the child begins to eliminate progressively sounds that are not in the language of the parents while progressively elaborating those in the language. Babbling enables the child to begin to acquire the language of his or her particular society. During the later part of the babbling stage also, the child begins to make repetitive sounds such as baba baba or mama mama, sometimes called lallation. It should be noted that during babbling, the child does not produce sound in order to communicate, but rather he is playing with the articulatory organs. In general, babbling sets the stage for producing communicative language sounds. From about nine months the child begins to string sounds together to produce words, repeating the same sound patterns. The last stage of the pre-linguistic speech phase commences about age 10 months. This is the stage of vocal imitation and comprehension of adult speech sounds. At about the end of the first year, the child speaks the first meaningful words. Once this has taken place, there is rapid increase in vocabulary.

SELF ASSESSMENT EXERCISE II

Describe the process of language development of a toddler.

Answer:

From the age of about three, children can indicate fantasy or make-believe linguistically, produce coherent personal stories and fictional narrative with beginnings and endings. By age five, a child’s vocabulary will grow to approximately 1,500 words. Five-year olds are also able to produce five-to-seven-word sentences, learn to use the past tense, and tell familiar stories using pictures as cues.

SELF ASSESSMENT EXERCISE III

Describe four important children’s behaviours that mark language development at the preschool stage.

Answer:

- They begin to use complex sentences
- They can indicate fantasy or make believe linguistically.
- They can also vary their speech style when talking to audiences.

SELF ASSESSMENT EXERCISE IV

What do you understand by metalinguistic awareness?

Answer:

Metalinguistic awareness is the cognitive process that allows a person to monitor their use of language.

**MODULE 3 CHILDHOOD DEVELOPMENTAL
ANOMALIES AND CONTEMPORARY EARLY
CHILDHOOD MODEL**

UNIT 1

SELF ASSESSMENT EXERCISE I

state whether you agree or disagree with the following statements. Give reasons or your answers.

Answer:

- a) **An impairment always leads to disability.**(Disagree)
- a. Impairment does not always lead to disability. Disability is the absence of a particular part of the body or reduction in function of some part. An impairment that does not prevent the person from carrying out some function is not a disability. A person with a minimal ear damage, which does not affect his hearing ability is not disabled.
- b) **A disabled child is handicapped in all areas of functioning** (Disagree)
- b. When a disabled person cannot adapt to the environment or the impaired person cannot interact with people around, that person is said to be handicapped. Today the impaired goes about his social relationships without difficulty. Such a person is not handicapped though he has disability. The blind would be handicapped in mobility and may not be handicap in singing.

SELF ASSESSMENT EXERCISE II

Distinguish between neuro muscular disability and muscular skeletal disability.

Answer:

- Muscular skeletal disability is a deformity or disorder of the bone or muscles of the body which hinders the control or movement of affected body parts.
- Neuro Muscular disability is the deformity or disorder of the nervous system which muscles for voluntary movements are weakened or degenerated.

SELF ASSESSMENT EXERCISE III

With examples explain what mental retardation means.

Answer:

A person with limitations in mental functioning is said to be mentally retarded. Such a condition causes slow learning, mental and physical growth. Example of the mentally retarded are in.

Communication: The mentally retarded has difficulty in speech and actions.

Motor Development: There is no coordinator in fine motor actions.

Self Care: The mentally retarded is careless about hygiene and daily needs. Needs others to look after them.

Academics: At an expected age a child is expected to begin reading and writing. The retarded take longer time to learn or may never be able to attend formal school due to mental retardation.

SELF ASSESSMENT EXERCISE IV

Mention six examples of childhood behaviour difficulties?

Answer: Behaviour difficulties depend on its frequency, intensity and duration e.g.

- i. **Temper tantrums:** When a child always express anger by screaming, hit self etc.
- ii. **Enuresis:** When a child of the age 5 – 6 bed wet frequently or at least twice a month, he has enuresis.
- iii. **Withdrawn Behaviour:** Such a Child is not quarrelsome nor aggressive; always tolerant and considerate.
- iv. **Aggressive:** Such child is quarrelsome, in speech and actions.
- v. **Stealing:** When a child develops the habit of carrying what does not belong to him without permission.
- vi. **Hyperactive:** Such a child has low attention span. He carryout action as they occur without thinking.

SELF ASSESSMENT EXERCISE V

i. What is visual impairment?

Answer:

- When a child's eye sight falls so low that he cannot read normal prints and some special means have to be devised to help him read, he is considered a child with visual impairment.

ii. List 3 types of visual impairment?

Answer:

- a. The blind: - People who cannot see at all
- b. The low vision: - When objects need to be brought very close before the person can see them
- c. The partially sighted: - When people cannot read normal prints and need the print to be enlarged, they have partial sight.

iii. List 5 causes of visual impairment

Answer:

- a. **Albinism:** - Inherited pigment decrease, which causes abnormal optic nerve development.
- b. **Cataract:** - Opacity or cloudiness of the lens. Causing blurred vision poor colour vision or light sensitivity. Because light cannot pass through the lens.
- c. **Coloboma:** - A birth defect which causes a deft in the pupil, lens, retina or optic nerve. If damage extends to retina could reduce acuity.
- d. **Glaucoma:** - An increased pressure in the eye due to blockage of normal flow of fluid in the eye. May come peripheral field loss, poor night vision and light sensitivity.

SELF ASSESSMENT EXERCISE VI

i. What is hearing impairment?

Answer:

- Hearing impairment is the loss of all levels of hearing be it partial or total loss, which causes hard-of hearing or deafness.

ii. List three types of hearing loss.

Answer:

- a. Conductive loss: - This is when sound waves cannot be conducted to the inner ear due to damage done to the outer or middle ear due to damage done to the outer or middle ear.
- b. Sensor neural loss: this occurs due to damage to the inner ear on auditory nerve impeding sound message being sent to the brain.
- c. Central auditory processing disorder: No specific damage done to the ear. But the neural system involved in understanding what is heard is impaired causing difficulty in understanding what is heard.

iii. List five causes of hearing impairments:

Answer:

- (a) Prolonged exposure to sound or exposure to explosive blast damages the ear drum.
- (b) Non hereditary hearing loss caused by prenatal infections illness or conditions occurring at the time of birth or shortly after birth.
- (c) Obstruction in the outer ear due to excessive wax or foreign navies.
- (d) Autosomal dominant factor: one parent who carries the dominant gene for hearing loss and typically has a hearing loss passes, it to the child. The probability is higher if both parents have hearing loss and carries the dominant gene.

- (e) Autosomal recessive hearing loss. This is where both parents have normal hearing but carry a recessive gene. Which could probably be passed on to the child to cause hearing loss.

SELF ASSESSMENT EXERCISES VII

i. What is speech impairment?

Answer:

- Speech impairment means difficulty using the body parts and muscles needed for speech, causing a child to stammer or stutter or causing difficulty in articulating words.

ii. List and describe two types of speech impairment

Answer:

- a. Phonological impairments: - This occurs when a child omits sounds from words or cannot use some sounds correctly e.g. they would say “ca” for “cat”.
- b. Articulating impairments: - caused by problem in the month or nose structure that one used during speech such as the cleft palate or they may be caused by abnormality in the function of the muscles or nerves responsible for speech production such as cerebral palsy causing a child to be unable to make a particular speech.

iii. List Five causes of speech impairment?

Answer:

- a. Brain tumor: Swelling or inflammation of the brain
- b. Cleft palate or lip: Children born with this condition find it difficult or impossible to learn to speak.
- c. Muscles injury: Injury to the muscles responsible for speech
- d. Drugs of effect: Could be side effect of medication
- e. Emotional or psychological problems.

UNIT 2 CAUSE OF DEVELOPMENTAL ANOMALIES

SELF ASSESSMENT EXERCISE I

Describe how genetic factors can cause mental disability

Answer:

If there is a history of mental retardation on either side of the parents and the couples did not have the defective genes identified and controlled, there could be the possibility of transmitting the defects on to the child during conception.

Another way that causes mental disability in a child is by the process of cell division at conception. Whereby the child conceived has a defective chromosome which causes mental retardation even when the parents are not having mental retardation gene.

UNIT 3 CHARACTERISTICS OF CHILDREN WITH DEVELOPMENT ANOMALIES

SELF ASSESSMENT EXERCISE I

Describe the strategies caregivers can use to manage children with behaviour difficulty.

Answer:

- Children with behaviour difficulty can be:
 - i. Observed carefully because the problem of the child's unacceptable behaviour.
 - ii. The manager should try to understand why the child behaves as he does.
 - iii. The manager should set a reasonable goal for improvement based on the child's immediate needs and developmental level.
 - iv. Plan towards the goal in small steps. Always use concrete reward in rewarding good behaviour and ignoring bad behaviour.
 - v. Relate with the child naturally
 - vi. Be consistent in your response to modify the child punishment aggravate the problem.

UNIT4 CONTRIBUTION OF MARIA MONTESSORI TO THE DEVELOPMENT OF EARLY CHILDHOOD EDUCATION

SELF ASSESSMENT EXERCISE I

List at least four sources through whom Maria Montessori's work was inspired.

Answer:

- Some professional predecessors whose work inspired Maria Montessori include.
 - a. Pestalozzi, an educational thinker
 - b. Fredrich Froebel, an educational thinker
 - c. Itard, a French Physician
 - d. Jacquez Rousseau, a philosopher and educational theorist.

SELF ASSESSMENT EXERCISE II

Briefly Describe the three key elements in Montessori's method.

Answer:

- **The Child:** The child's senses are the gateway to knowledge. The senses are very active during the early years of learning activities like writing reading, motor and physical development.
- **The prepared environment:** This focuses on organized and coordinated materials and equipment to aid the child in learning at a natural environment.
- **The teacher:** Is a resources person and a catalyst for progress. The teacher is a source of stimulation for the child through the use of noticing and interesting activities. The teacher is to direct and have intimate knowledge of the mind and character of the child.

SELF ASSESSMENT EXERCISE III

Briefly outline the major components of Montessori's Curriculum.

Answer:

- a. **Motor Education:** This refers to five motor skills where the child is developed through the use of sensorial materials as well as practical life work. Such as washing dishes, pouring materials, sweeping, polishing shoes etc. the child is also taught primary activities of everyday life like self-care, house-hold management, manual work, gymnastic and rhythmic exercises.
- b. **Sensory Education:** This is when manipulative or didactic materials are used for sensory education. Which entail serration, classification and conservation activities in a variety of medium and sequenced according to difficulty.
- c. **Language or intellectual education:** This is where the teacher engages in careful pronunciation of words as he talks to the child. The sensorial materials are involved as part of intellectual education and vice versa. Something writing and reading activities are also sequenced by difficulty.
- d. **The concept of children's house:** The original Montessori house consisted of a set of rooms for intellectual works, for children to play and sleep, a clubroom for games and music, a dining room, a dressing room, a garden for all round development.

Social values are also stressed in the children's house as children serve lunch, eat together and later clean the plates.

SELF ASSESSMENT EXERCISE IV

Briefly discuss two merits and two demerits of Montessori Method.

Answer:**MERIT**

- a. Montessori achieved is new era in early child education whereby many preschools are based on Montessori method adopting her approach and using educational materials as developed by Montessori.
- b. Her second achievement centres in the freedom given to the child. The relatively few constraints on learning yet the presence of a person to guide the child, helps in total development of the child.
- c.

LIMITATIONS:

- a. Montessori schools rely mostly on educational apparatus and materials. Which limits the child and as well the teacher.
- b. Montessori equipment are very expensive and she advices for individual teaching which calls for the purchase of enough materials for each child.

UNIT 5 CONTRIBUTION OF REGGIO EMILIA TO THE DEVELOPMENT OF EARLY CHILD EDUCATION

SELF ASSESSMENT EXERCISES I

Identify six environment personalities that guided the evolution of Reggio Emilia Model.

Answer:

The eminent personalities that guided the evolution of Reggio Emilia model are:

- a. Loris Malaguzzi and others who helped established the school
- b. Urie Brofesnbrenner, a contemporary theorist and writer
- c. Lev Vygotsky
- d. Erik Erikson
- e. Howard Gardener
- f. Jerome Braner

SELF ASSESSMENT EXERCISE II

i. Explain the importance the child's role in Reggio Emilia as described in the eight principles of preschool educational philosophy

Answer:

The Children, the teacher and the parents are the three protagonist in the Reggio Emilia educational process and his model can be described in terms of eight principles. These are:

1. The child as a protagonist: all children are strong and capable and they have preparedness; potential, curiosity, and interest in constructing their learning, negotiating with everything their environment brings them.
2. The child as a collaborator: education must focus on each child in relation to other children, the family, the teachers and the community rather than on each child in isolation. There is an emphasis on work in small group.

The child as communicator: this approach fosters children's intellectual development through a systematic focus on symbolic representation, including words, movement drawing, painting, music which leads to children to surprising levels of communication, symbolic skills and creativity. Children have the right to use many materials in order to discover and communicate what they know, understand, wonder about, question, feel and imagine.

SELF ASSESSMENT EXERCISE III

Describe the major tenets of Reggio Emilia model of early childhood education

Answer:

The major tenets of Emilia's model of early childhood education are as follow:

1. **The environment:** the schools are developed to encourage social and cognitive development and it is planned to facilitate interactions between children as well as between teachers and parents.
2. **The role of the teaching staff:** there are three adult roles in Reggio Emilia; the atelierista, the pedagogista and the teachers. Adults in each of these roles interact with the children, the parents, the community and each other. The atelierista uses a background in art to work with children in the atelier. The pedagogista serve as facilitators for the exchange of ideas between teachers both within a school and among different schools. The teachers' role is to work with the children; they focus on the children's work rather than as instructors to the children.
3. **The role of the child:** A major portion of the children's time is spent on project work. They use art materials to represent what they understand and how they are using creativity to reconstruct knowledge.
4. **The curriculum:** the curriculum is described as emergent; teachers do not plan objectives and learning activities in advance. Rather they first study the characteristics of the children as well as their aptitudes, needs, interests. In addition, the staff meets weekly to continue sharing knowledge about their pupils in their planning.

5. **Assessment:** The record of children's work, products of projects or themes are reflected in the children's artwork. Ongoing discussion between staff members and the children provide continuous assessment of the curriculum and the children's progress. Teachers and atelieristas keep daily anecdotal records of what the children are doing and the steps that will be taken in guiding the children through further efforts. The display of the children's work on the walls of the school plus discussions and written information from the assessment of children's progress as well as self-evaluation by children and teachers.