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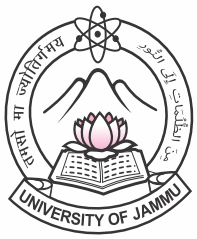

SELF LEARNING MATERIAL

OF

M.A. EDUCATION

Semester-II

SUBJECT: SPECIAL EDUCATION **UNIT : I - IV**

COURSE NO. : 205 **LESSON : 1 - 11**

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Special Education

COURSE NO. 205

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MASTER'S DEGREE PROGRAMME IN EDUCATION
(M.A. EDUCATION) DD&OE
CHOICE BASED CREDIT SYSTEM
SEMESTER II

Syallabus for the Examination to be held in May 2024, 2025 and 2026

Course No. PSEDTC205 **Title : Special Education**
Credits : 4

Maximum Marks	**100**
Minor Test-I :	**10**
Minor Test-II :	**10**
Internal Assessment Assignment	**10**
Major Test :	**70**

Learning Outcomes :

(i) Students will know about special, inclusive and integrated education.

(ii) Students will understand the role of various Acts and policies given by organizations in context of children with special needs.

iii) Students will understand the role of for special schools, integrated school, teachers and community in education of children with special needs.

iv) Students will know the specific characteristics and procedure of identification of various type of children with special needs.

v) Students will understand various educational interventions for meeting the needs of children with special needs.

Course Contents :

Unit-I

Special Education : Nature and Scope and Objectives, Historical Perspectives, Concept of Inclusive Education

- Role of Rehabilitation Council of India RCI and PWD (Persons with Disability Act, 1995)

- Recommendation of NPE (1986) and POA of 1992
- National Policy for Person with Disability, 2006

Unit-II

Education of Mentally Related (MR) : Concept, Characteristics, Need and Causes, Criteria for Identification.

Education of MR children and placement :

Role of National Institute for Mentally Retarded

Education of Gifted and Creative Children Concept, Characteristics & Identification, Educational programmes.

Unit-III

Concept of Visually Impaired : Characteristics and Types (degree of impairment)

Etiology and prevention Educational Programmes

Role of National Institute for Visually Impaired

Concept of Hearing Impaired : Characteristics and Types (degree of impairment)

Etiology and Prevention Educational Programmes and Placement

Unit-IV

Educational of Orthopedically

Handicapped : Concept, Types

Educational Programme and Placement

Role of National Institute of Orthopedically Handicapped

Learning Disabled Children : Concept and

Characteristics Identification, Prevention

Educational programmes

Nature and Objectives of special school, Concept of main streaming, Integrated School, Role of teacher, Role of Community.

Mode of Transaction : ***Lecture-cum-discussion method***

Note for paper setting :

There shall be two tests & one Assignment as part of Minor Evaluation & one major test at the end of semester in each semester. The students shall be continuously evaluated during the conduct of each course on the basis of their performance as follows :

Theory	Syllabus to be covered in the examination	Time allotted for the examination	% weightage (marks)
Minor Test-I	Unit I & Unit II	Sixty Minutes	10 marks
Minor Test-II	Unit III & Unit IV	Sixty Minutes	10 marks
IAA			10 mark (two question of 5 marks each)
Major Test	Unit I to IV	Three Hours	70 marks

Essential Readings :

1. Bender, W. No. (1995) Learning Disability, London : Allyn & Bacon.
2. Berdine, W.H. Blackurst A.E., (1980) : An Introduction to Special Education, Boston : Harpers Collins Publishers
3. Dash, M., (2000), Education of Exceptional Children, New Delhi : Atlantic Publishers and Distributors
4. Hallahar, D.P., Kauffman, J.M., (1991). Exceptional Children : Introduction to special Education, Massachusetts : Allyn and Bacon, Publishers.
5. Hewett, Frank, M., & Foreness, Steven R., (1984) Education of Exceptional learners, Allyn & Bacon Publishers.
6. Kirk, S.A., & Gallagher J.J., (1989). Education of Exceptional Children, Boston : Haughton Mifflin Co.

Suggested Readings :

1. Farrell, Michael (2012) : Educating Special Children, New York : Routledge Taylor and Franeis Group.
2. Wilson, Ruth A., (2003), Special Educational Needs in the Early Years, New York : Routledge Falmer Taylor and Francis Group.
3. Yssldyke, James E., (2010). Critical Issues in Special Education, Boston : Houghton Mifflin Compa

Note for Paper Setters (Major Test) :

The question paper will contain long and short answer type questions. There will be total of eight long answer type questions (two questions from each unit with internal choice) and the candidates will be required to answer one question from each unit. Each long answer type question will carry 15 marks. Question No. 1 will be compulsory and shall have 04 short answer type questions (100 words per question). (Short answer type questions will be from all the units. Each short answer type question will carry 2.5 marks)

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CONTENTS

SPECIAL EDUCATION : NATURE AND SCOPE AND OBJECTIVES, HISTORICAL PERSPECTIVES, CONCEPT OF INCLUSIVE EDUCATION

Unit-I **Lesson: 1**

STRUCTURE

1.1 INTRODUCTION

We live in a diverse society where each person has unique characteristics due to differences in their physical make-up, psychological makeup, social tendencies and behaviors, emotional capabilities, educational background, and socioeconomic status. A child therefore enters this world with their own special capacities and physical and mental qualities. While some people are born with outstanding talents or powers, others are average or perhaps have had several impairments and inadequacies since birth. The nature of the environmental disparities they met in their feeding and education may further extend this gap between the children's talents and capacities connected to their learning, adjustment, and development found at the time of their birth.

1.2. OBJECTIVES

After going through this Unit, the students will be able to

- Explain the meaning of special education
- Elucidate the nature of special education
- Discuss the objectives of special education
- Elaborate the scope of special education
- Throw light on the historical perspective of special education
- Analyze the concept of inclusion
- Define the term 'inclusive education'
- Explain the importance of inclusive education

1.3 CONCEPT OF SPECIAL EDUCATION

Special education is a field of education that focuses on meeting the unique needs of students with disabilities. The goal of special education is to provide tailored instruction and support to help these students overcome challenges and reach their full potential. This educational approach acknowledges that not all students learn in the same way and recognizes the diverse needs of learners. In the context of special education, disabilities can encompass a wide range of conditions, including but not limited to learning disabilities, intellectual disabilities, emotional or behavioral disorders, physical disabilities, and sensory impairments. These disabilities may affect a student's ability to learn, communicate, socialize, or perform everyday activities.

One of the key principles of special education is the concept of individualization. Educators and support staff in special education work to create Individualized Education Programs (IEPs) for each student with a disability. An IEP is a personalized plan that outlines the student's specific learning needs, sets measurable goals, and details the accommodations and services required to support the student's academic and social development. This individualized approach recognizes that each student has unique strengths, challenges, and learning styles.

Special education services may be provided in a variety of settings, including general education classrooms, resource rooms, self-contained classrooms, or

special education schools. The placement and services a student receives are determined through a collaborative process involving educators, parents or guardians, and sometimes other professionals, such as speech therapists, occupational therapists, or psychologists. Special education teachers play a crucial role in implementing IEPs and providing targeted instruction to students with disabilities. They often collaborate with other educators, specialists, and support staff to create a supportive learning environment. Additionally, special education services may involve related services such as speech therapy, physical therapy, counseling, and assistive technology to address specific needs.

Special education is a vital and evolving field that seeks to address the diverse needs of students with disabilities. Through individualized planning, inclusive practices, and collaborative efforts, special education aims to provide every student with the support and resources necessary to achieve academic success and develop essential life skills. The ultimate goal is to empower individuals with disabilities to participate fully in society and lead fulfilling lives. Special Education has been conceptualized and defined by various experts,some important definitions are given below:

Kirk and Gallagher (1986) defined special education as“when youngsters in the same class room are remarkablydifferent, it is difficult for the teacher to help them reach their educational potential withoutsome kind of assistance. The help that the schools devise for children who differ significantlyfrom the norm is called Special Education”.

According to Bob Algozzine (1990)“Special Education is the instruction designed for students withdisabilities or gifts and talents who also have special learning needs. Some of these studentshave learning difficulties in regular classroom. They need special education to functionproperly in school”.

Heward in 2000 defined special education as“an individually planned, specialized, intensive, goaldirected instruction. When practiced most effectively and ethically, Special Education is alsocharacterized by the use of research-based teaching methods, the application of which is guidedby direct and frequent measures of student performance".

Thus, special education refers to a system of tailored instructional strategies,

support services, and learning environments designed to meet the unique needs of students with disabilities. The aim is to provide these students with an education that addresses their individual challenges and helps them achieve academic success while fostering their overall development. Special education goes beyond traditional teaching methods to accommodate diverse learning styles, abilities, and exceptionalities.

1.4 CHARACTERISTICS AND NATURE OF SPECIAL EDUCATION

- Special Education is always meant for meeting the special needs and requirements of the exceptional or special children.
- Special Education is diagnostic in nature, i.e. it helps in diagnosing and identifying the nature and degree of the deviations of the children from their normal peers.
- It is intervention based, means it always aims to provide an intervention for the problems faced by the special children for example in the field of learning and adjustment.
- Special Education is developmental in nature, which means that it focuses on the overall development of a child from womb to tomb.
- Special Education is specific and specialized in nature for example, it needs special teachers, special students, special methods, special aids and special learning environment for making the special students learn and progress.
- Special Education is highly individualized, for example, it takes care of the special needs or disability of an individual child and helps him to develop his potentiality to the maximum.
- Special Education is continuous i.e. it is provided to the special child from the very beginning till the end or at least up to the time it is needed for the welfare, progress and adjustment of the child.
- Special Education is intensive in nature i.e. it is based on all-round efforts from the educators as well as the child in order to address the individualized specific needs of the exceptional children.
- Special Education is goal directed i.e. it is always based upon purposeful instructions, well thought and planned learning experiences to the

children.

- Special Education is research oriented and experimental in nature i.e. it follows evidence-based practices.
- Special Education is measurable and testable in nature i.e. it can be tested with the help of various scientific tools and techniques.
- Special Education is universal in nature i.e. it covers all the individuals without any discrimination on the basis of age, caste, colour, gender, ethnicity etc.

1.5 SCOPE OF SPECIAL EDUCATION

Special education is an important part of general education system. It should be made available to all students who need it. We can understand the scope of special education by considering the following points:

- **Provide services and support**

Special education provides a range of services and support that are designed to meet the unique needs of disabled students. These services include accommodations in the classroom, assistance with daily tasks, and guidance and counseling.

- **Help in achieving full potential**

It encourages disabled students to participate fully in **curricular and co-curricular activities**. thus, helping them to achieve their full potential.It is the duty of teachers to provide enough opportunities to disabled children so that they can explore their talent and creativity.

- **Develop confidence in disabled students**

It is helpful in developing the confidence of disabled students by ensuring that they get the same educational benefits as their normal peers in a regular classroom. One of the objectives of special education is to provide quality education to all children so that they can confidently handle any problem in their lives.

- **Provide opportunities to teachers**

Special education teachers work with other teachers and specialists to provide a well-rounded education for students with disabilities. They help disabled

students to become self-sufficient and prominent members of the society.

- **Provide least restrictive environment**

It provides the least restrictive environment for special children. In the least restrictive environment, disabled children work collaboratively with other students and help each other solve the problem. In this way, they can develop their critical thinking skills, social skills and cooperative skills.

- **Make education universal**

Universalization is one of the main aims of education. It can be achieved if, along with abled children, disabled children are also provided with equal educational opportunities. Thus, Special education can play an important role in achieving this aim.

1.6 OBJECTIVES OF SPECIAL EDUCATION

Special education aims to provide customized and specialized instruction to meet the unique needs of students with disabilities. The objectives of special education are designed to ensure that individuals with exceptionalities receive an education that addresses their specific challenges and maximizes their potential.

1. Tailors instruction to meet the specific learning needs of each student with a disability. This involves developing personalized education plans (IEPs) that outline goals, accommodations, and services.
2. Promotes an inclusive educational environment where students with disabilities have opportunities to learn and participate alongside their non-disabled peers to the greatest extent possible.
3. Identifies and addresses learning or developmental challenges as early as possible to minimize the impact of disabilities and enhance the likelihood of successful educational outcomes.
4. Ensures that students with disabilities have access to the same academic content as their non-disabled peers by adapting materials, using assistive technology, and providing appropriate accommodations.
5. Focuses on fostering social skills and promoting positive social interactions to help students with disabilities build relationships and

successfully engage with others.

6. Provides instruction in practical, daily living skills that enable students with disabilities to become more independent and capable of managing everyday tasks.
7. **P**repares students with disabilities for life beyond school by incorporating transition planning into their educational programs, with a focus on post-secondary education, employment, and independent living.
8. Implements a variety of assessment tools and methods to accurately measure the progress of students with disabilities and determine the effectiveness of instructional strategies.
9. Establishes strong partnerships with families to ensure that they are actively involved in the educational process, providing valuable insights into their child's needs and progress.
10. Advocates for the rights of students with disabilities and raise awareness about the importance of inclusive education, combating stigma and promoting a supportive community.

1.7 HISTORICAL PERSPECTIVE OF SPECIAL EDUCATION

- Although there are isolated examples of caring for and treating disabled individuals in ancient Greece and Rome, early societies typically shunned people who differed from the norm.
- Although there are a few rare examples of ancient Greece and Rome caring for and rehabilitating disabled persons, early cultures generally avoided those who were different from the norm.
- During the Middle Ages the church became the first institution to provide care for physically or mentally impaired people, but the development of techniques associated with special education did not emerge until the Renaissance, with its emphasis on human dignity.
- In the mid-1500s Pedro Ponce de Leon succeeded in teaching deaf pupils in Spain to speak, read, and write; it is assumed that his methods were followed by Juan Pablo Bonet, who in 1620 published the first book on the subject.

- This gave rise to a wider European interest in the education of deaf individuals. In 17th-century England John Bulwer published an account of his experiences teaching deaf persons to speak and lip-read.
- In France similar work was carried on by 'Charles-Michel, abbé de lEpée (1712–89), who changed the nature of communication for deaf and hard-of-hearing individuals by developing the natural sign language they used into a systematic and conventional language for more universal use. His work was developed by Roch-AmbroiseCucurron, AbbéSicard, and gave rise to the manual system, or silent method, of teaching people with hearing impairments.
- In Germany Samuel Heinicke experimented with training deaf children to speak, and in the 19th century Friedrich Moritz Hill (1805–74), a leading educator of the deaf, developed this method in relation to the concept that education must relate to the "here and now" of the child—known as the "natural method." Thus arose the oral method of instruction that in time became an accepted practice throughout the world.
- No serious attempt was made to educate or to train persons with visual impairments, however, until the late 18th century. Valentin Haüy, known as the "father and apostle of the blind," opened the National Institution of Blind Youth (Institution Nationale des JeunesAveugles) in Paris in 1784, with 12 blind children as his first pupils.
- News of Haüy's success in teaching these children to read soon spread to other countries. Subsequently, schools for the blind were opened in Liverpool, England (1791), London (1799), Vienna (1804), Berlin (1806), Amsterdam and Stockholm (1808), Zürich, Switzerland (1809), Boston (1829), and New York City (1831).
- Scientific attempts to educate children with intellectual disabilities originated in the efforts of Jean-Marc-Gaspard-Itard,a French physician and otologist. In his classic book The Wild Boy of Aveyron (1807), he related his five-year effort to train and educate a boy who had been found running wild in the woods of Aveyron.

- Itard's work with the boy became notable for the possibilities it raised regarding the education of persons with mental or emotional disabilities. Years later his student EdouardSéguin, who emigrated from France to the United States in 1848, devised an educational method that used physical and sensory activities to develop the mental processes.
- Séguin's published works influenced Maria Montessori, an Italian pediatrician who became an educator and the innovator of a unique method of training young mentally retarded and culturally deprived children in Rome in the 1890s and early 1900s. Her approach emphasized self-education through specially designed "didactic materials" for sensorimotor training; development of the senses was the keynote of the system.

1.8 CONCEPT OF INCLUSIVE EDUCATION

Education is not only a fundamental right, but has also been declared as one of the human rights. This clearly means that every child has the basic right to education. Inclusive education is an approach to teaching and learning that recognizes and celebrates the diversity of all students. It aims to provide equal educational opportunities for students with diverse abilities, backgrounds, and learning needs within mainstream educational settings. Inclusive education believes in that every student, regardless of their differences, should be given the chance to participate actively in all aspects of the learning environment. It is an educational philosophy and approach that aims to provide equal opportunities for all students, regardless of their differences, abilities, or disabilities. The core principle of inclusive education is to create an environment where every student feels valued, respected, and supported in their learning journey. This approach not only addresses the needs of students with disabilities but also promotes diversity and equity in the classroom.

Key Principles of Inclusive Education:

- **Diversity and Individual Differences:** Inclusive education recognizes and celebrates the diversity of students. It acknowledges that every student is unique with their own set of strengths, weaknesses, interests, and learning styles. This diversity is not limited to academic abilities but

also includes differences in culture, language, socioeconomic status, and more.

- **Equal Opportunities:** Inclusion ensures that all students have equal access to quality education, irrespective of their background or abilities. This means removing barriers to learning and providing necessary support to help each student reach their full potential.
- **Participation and Collaboration:** In an inclusive classroom, all students are encouraged to actively participate in learning activities. Collaborative learning becomes a key component, fostering an environment where students learn from one another and support each other's growth.
- **Support and Differentiation:** Inclusive education emphasizes the provision of support and accommodations to meet the diverse needs of students. This may include specialized instruction, assistive technologies, flexible assessment methods, and other strategies to ensure that every student can engage with the curriculum.
- **Positive School Culture:** Inclusive education extends beyond the classroom to create a positive and accepting school culture. This involves promoting respect, understanding, and empathy among students, teachers, and the broader school community.

1.9 NEED AND IMPORTANCE OF INCLUSIVE EDUCATION

Inclusive education is rooted in the principles of equality and human rights. Every individual, regardless of their physical or cognitive abilities, deserves the right to education. Inclusive schools send a powerful message that every student is valued and has a unique contribution to make, creating a more compassionate and just society. Moreover, inclusive education benefits not only students with disabilities but also their peers. When students with diverse abilities share the same learning environment, it fosters empathy, understanding, and acceptance. It breaks down stereotypes and promotes a culture of respect for differences. Inclusive schools become microcosms of society, preparing students for the real world where diversity is the norm. Inclusive education also has positive academic outcomes. Research has shown that students with disabilities who are

educated in inclusive settings often achieve higher academic performance compared to those in segregated environments. Inclusive classrooms leverage the strengths of each student, creating a supportive learning community where everyone has the opportunity to excel. This fosters a culture of flexibility and adaptability, promoting personalized learning plans that cater to diverse learning styles and abilities.

The need and importance of inclusive education can be discussed in several dimensions:

1. **Equal Opportunities for All:** Inclusive education promotes the idea that every student has the right to an education tailored to their needs. It seeks to eliminate discrimination and provide equal opportunities for all students, irrespective of their background, abilities, or disabilities.
2. **Social Integration:** Inclusive education fosters social integration by bringing together students from diverse backgrounds, abilities, and disabilities. It helps reduce stigma and fosters an environment where students learn to appreciate and understand differences, promoting a more inclusive and accepting society.
3. **Development of Social Skills:** Students in inclusive classrooms have the opportunity to interact with peers who may have different abilities and perspectives. This interaction helps in the development of social skills, empathy, and a sense of community.
4. **Enhanced Learning Environment:** Inclusive classrooms create a rich learning environment where students can learn from each other. When diverse perspectives and experiences are brought into the classroom, it can enhance the overall learning experience for all students.
5. **Preparation for Real-world Diversity:** Inclusive education prepares students for life in a diverse society and workforce. Exposure to different abilities and backgrounds in the classroom helps students develop the skills necessary for collaboration and teamwork in the real world.
6. **Positive Impact on Academic Achievement:** Research suggests that inclusive education can have positive effects on academic achievement for both students with and without disabilities. Students in inclusive settings often show improvements in academic performance, self-

esteem, and social skills.

7. **Legal and Ethical Imperatives:** Many countries have laws and policies in place that promote inclusive education as a fundamental right. Inclusive education aligns with the principles of equal access and non-discrimination, reflecting legal and ethical imperatives in many societies.

Examples of inclusive education can be found in various countries around the world. For instance:

- **Finland:** The Finnish education system is often cited as a model for inclusive education. They focus on individualized support and early intervention, aiming to address diverse learning needs within mainstream classrooms.
- **Canada:** Canada has implemented inclusive education practices across many provinces. Students with disabilities are included in regular classrooms, and efforts are made to accommodate their individual needs.
- **United States:** The Individuals with Disabilities Education Act (IDEA) in the United States mandates that students with disabilities should have access to a free and appropriate public education in the least restrictive environment. This has led to the inclusion of students with disabilities in general education classrooms.

In conclusion, inclusive education is not just a matter of policy but a philosophy that recognizes and celebrates diversity. By providing equal opportunities for all learners, inclusive education contributes to the creation of a more equitable, compassionate, and understanding society.

1.10 Let Us Sum Up

Having both special and inclusive education for children with disabilities is crucial for meeting the diverse needs of this student population. Special education offers targeted, individualized support, addressing specific learning challenges in a more controlled environment. It allows for tailored interventions and personalized learning plans, ensuring that children with significant disabilities receive the attention and resources they require. On the other hand, inclusive education promotes social integration and diversity by bringing

children with disabilities into mainstream classrooms. This approach fosters a sense of belonging, encourages empathy among peers, and prepares all students for an inclusive society. In inclusive settings, children with disabilities can benefit from exposure to a variety of learning experiences, enhancing their adaptability and social skills.The coexistence of special and inclusive education recognizes that not all children with disabilities have the same needs or preferences. Special education provides a specialized track for those who require intensive support, while inclusive education offers a more integrated approach for students who can thrive in mainstream settings with appropriate accommodations.

1.11 UNIT END EXERCISE

- Explain the concept of Special Education.
- What are the major characteristics of Special Education?
- Give the historical background of Special Education.
- Discuss the objectives and principles of Special Education
- Elucidate the concept of Inclusive Education.

1.12 SUGGESTED READINGS

1. Dash, M. (2021) Education of Exceptional Children. New Delhi: Atlantic Publisher andDistributors.
2. Sharma, P. L., et.al (2012) 'Inclusive Education: What, Why and How', RIE (NCERT) Mysore, A.G. Suvratheendra Vani Press, Geetha Road, Chamarajapuram Mysore 570 005.
3. Sharma, R. A. (2004). Fundamental of Special Education.
4. Ministry of Human Resource Development (MHRD) (2006), Inclusive Education- Draft Action Plan for Inclusive Education of Children and Youth with Disabilities, New Delhi: MHRD.
5. *Report on Integration of Culture Education in the School Curriculum* (2005). CABE, MHRD, GOI. Retrieved from

   http://mhrd.gov.in/sites/upload_files/mhrd/files/documents-reports/Culture.pdf

6. *Report on Justice Verma Commission on Teacher Education (2012).* Department of School Education and Literacy, Ministry of Human Resource Development, Government of India. Retrieved from http://mhrd.gov.in/sites/upload_files/mhrd/files/documents-reports/JVC%20VoI%201.pdf

ROLE OF REHABILITATION COUNCIL OF INDIA (RCI) AND PWD (PERSONS WITH DISABILITY ACT, 1995)

Unit I **Lesson: 2**

STRUCTURE

2.1 INTRODUCTION

India has undergone a significant evolution in recognizing and addressing the needs of people with disabilities (PWD), with a trajectory marked by the enactment of various policies aimed at ensuring their rights, inclusion, and well-being. The journey began with the integration of disability-related provisions in the Constitution of India, ensuring equality before the law and non-discrimination. The Rehabilitation Council of India (RCI) plays a pivotal role in fostering inclusivity and empowerment for persons with disabilities (PWD) in India. Established to regulate and standardize rehabilitation programs, RCI is instrumental in shaping policies that align with the principles of the Persons with Disabilities Act (PWD Act) of 1995. This landmark legislation aims to safeguard the rights of PWD, ensuring equal opportunities and accessibility.

Together, RCI and the PWD Act form the cornerstone of India's commitment to creating an inclusive society, advocating for the rights and well-being of individuals with diverse abilities. This lesson delves into their collaborative impact on fostering a more equitable and accessible environment.

2.2. OBJECTIVES

After going through this Unit, the students will be able to

- Explain the background of Rehabilitation Council of India (RCI)
- Discuss the structure of RCI the nature of special education
- Elaborate the objectives and functions of RCI
- Throw light on the historical perspective of Persons with Disabilities Act, 1995
- Explain the role of PWD Act, 1995

2.3 BACKGROUND OF REHABILITATION COUNCIL OF INDIA (RCI)

The rehabilitation of persons with disabilities in India has been receiving attention during the last five decades since independence. Hardly any planned efforts were made in this field for developing trained manpower which could help in rehabilitation of the persons with disabilities in India. The year 1981 was declared as the 'International Year of the Disabled Persons (IYDP)' by the United Nations. This was a good and welcome beginning as it concentrated as a means to arouse public understanding and

awareness as a first step before embarking upon a whole programme of activities which need to be spread over a period of years. Lack of appropriate trained manpower has been one of the major constraints in the expansion of rehabilitation services in the country. The training programmes in the field of rehabilitation/special education were isolated and ad-hoc in nature, with no standard syllabi. There was no

uniformity in the teaching curriculum run by various institutions at the Under-Graduate, Graduate and Post-Graduate levels. It was, therefore, decided by the Government of India in 1986 to set up a Rehabilitation Council to be responsible for:

(i) training policies and programmes;

(ii) to standardize the training courses for professionals dealing with persons with disabilities;

(iii) to grant recognition to the institutions running these training courses;

(iv) to maintain a Central Rehabilitation Register of the rehabilitation professionals; and

(v) to promote research in Rehabilitation and Special Education.

In order to give statutory powers to the Council for carrying out its duties effectively the Rehabilitation Council of India Act, 1992, was passed by the Parliament which came into force with effect from 22nd June 1993. The amendment in the Act in 2000 gave the additional responsibility of promoting research to the Council. RCI has recognised several institutions throughout the country, which are conducting RCI approved courses for manpower development in the field of rehabilitation and special education. The Council regularly organizes seminars/conferences/workshops at national and international level for up gradation of knowledge and skills of professionals.

2.4 STRUCTURE OF RCI

The Rehabilitation Council of India has a governing body that comprises a chairman, a vice-chairman, and 19 other members. The organizational structure of RCI is very strong in the form of General Council, Executive Committee, Chairman, Member Secretary, Expert Committees and Zonal Committee. The chairman is the supreme authority of the RCI. The chairman and the vice-chairman are appointed by the Central Government, and the other members are appointed by the Central Government in consultation with the State Governments. The members of the governing body include representatives from various fields, such as medicine, education, social welfare, and disability rights.

1. **Governing Body**: The RCI is governed by a council that consists of members appointed by the Central Government of India. The council is responsible for making policies and decisions related to the training and rehabilitation of persons with disabilities.
2. **Chairperson**: The Chairperson is the head of RCI and is usually a

distinguished person with expertise in the field of disability and rehabilitation.

3. **Executive Committee**: The council has an executive committee that assists in making decisions, implementing policies, and overseeing day-to-day operations. The Executive Committee includes members of the council.
4. **Departments and Divisions**: RCI has various departments and divisions responsible for different aspects of rehabilitation and training for people with disabilities. Some of these include:
    - **Academic Division**: Responsible for accrediting institutions that provide education and training in the field of rehabilitation.
    - **Administration Division**: Handles administrative and financial matters of the council.
    - **Examination and Certification Division**: Manages examinations and certification of professionals in the field of rehabilitation.
5. **Regional Centers**: RCI has established regional centers across India to facilitate and coordinate rehabilitation programs, training, and services at the regional level. These centers often work closely with local organizations and institutions.
6. **Recognized Institutions**: RCI recognizes and regulates various institutions, colleges, and universities that offer courses and programs in the field of rehabilitation. These institutions must meet RCI's standards and guidelines to ensure the quality of education and training.
7. **Professionals**: RCI regulates the qualifications and certifications of professionals working in the field of rehabilitation, such as clinical psychologists, rehabilitation counselors, special educators, etc. These professionals need to be registered with RCI to practice legally.
8. **Stakeholder Engagement**: RCI may have committees or mechanisms for engaging with stakeholders, including persons with disabilities, their families, and organizations working in the disability and rehabilitation sector.

2.5 OBJECTIVES OF RCI

- To regulate the training policies and programmes in the field of rehabilitation of persons with disabilities.
- To bring about standardization of training courses for rehabilitation professionals/personnels dealing with persons with disabilities.
- To prescribe minimum standards of education and training in the field of rehabilitation uniformly throughout the country.
- To regulate these standards in all training institutions uniformly throughout the country.
- To recognize foreign degrees/diplomas/certificates in the field of rehabilitation awarded by Universities/Institutions on reciprocal basis.
- To maintain Central Rehabilitation Register of professionals/ personnel possessing the recognized rehabilitation qualifications.
- To collect information on regular basis, on education and training in the field of rehabilitation of persons with disabilities from institutions in India and abroad.
- To encourage continuing rehabilitation education by way of collaboration with organizations working in the field of rehabilitation of persons with disabilities.
- To promote research in rehabilitation and special education.

2.6 ROLE OF RCI

The Rehabilitation Council of India (RCI) is a statutory body that plays a crucial role in the field of rehabilitation and special education in India. Its primary responsibilities include:

1. Accreditation and Recognition: RCI is responsible for the accreditation and recognition of institutions and programs that provide education and training in rehabilitation and special education. This includes programs for various disabilities such as intellectual disabilities, physical disabilities, and sensory impairments.
2. Standard Setting: RCI sets and maintains the standards for the training and education of professionals in the field of rehabilitation and special

education. It establishes guidelines for curriculum, infrastructure, and faculty qualifications to ensure quality education and training.

3. Certification: RCI conducts certification exams and awards certificates to individuals who have completed recognized courses in rehabilitation and special education. This certification is essential for professionals to practice in the field.
4. Promoting Research: RCI promotes and supports research in the field of rehabilitation and special education. It encourages the development of evidence-based practices and innovative approaches to better serve individuals with disabilities.
5. Regulation and Monitoring: RCI regulates and monitors the activities of institutions and professionals in the field to ensure compliance with the established standards and guidelines. This helps maintain the quality of services and education provided.
6. Advocacy and Awareness: RCI plays a role in raising awareness about the rights and needs of people with disabilities. It advocates for their inclusion and integration into mainstream society and ensures that their voices are heard.
7. Policy Development: The council provides recommendations to the government and other relevant bodies for the development of policies and programs related to rehabilitation and special education.
8. Skill Development: RCI is involved in skill development programs for professionals in the field of rehabilitation and special education to keep them updated with the latest developments and best practices.
9. Collaboration: RCI collaborates with various stakeholders, including government agencies, non-governmental organizations, and international bodies, to promote the welfare and inclusion of people with disabilities.

2.7 BACKGROUND OF PERSONS WITH DISABILITIES ACT, 1995

The persons with disabilities (Equal opportunities, protection of rights, and full participation) Act 1995 came into force on 7 February 1996. In a country like India where the population of disabled people is immense, and there's a scarcity of resources to make sure that disabled people aren't getting neglected of their

rights and equal opportunities, such an Act came into force by the government of India. The Act provides for both deterrence and progressive features of reformation for education, employment, rehabilitation of persons with a disability, special insurance schemes, the establishment of research and vocational training institutes to enhance all-round development, creation of an accessible environment where they can function as productive members of society.

The state has a responsibility to safeguard the rights of disabled people and nurture them in an environment that provides opportunities for skill development which can further help them in building confidence and helps in their survival. They have to create a barrier-free environment that helps them grow and explore new fortunes and ventures:

- The Act aims to restrain any situation of abuse and exploitation of persons in areas of medical care, education, job, special schemes by the government, etc.
- It also makes special provisions for the incorporation of persons with various NGOs (non-governmental organizations) and disabilities in society have acceptance.
- The act also upholds equality before the law and equal protection of laws within India (Article 14).
- Equality of opportunity in matters of public employment (Article 16).
- Article 41, which directs the state to ensure the people within the limit of economic capacity and development, right to work, right to education, and to public assistance in certain cases.

2.8 ROLE OF PWD ACT, 1995

This law is an important landmark and is a significant step in the direction to ensure equal opportunities for people with disabilities and their full participation in the nation building. The Act provides for both preventive and promotional aspects of rehabilitation like education, employment and vocational training, reservation, research and manpower development, creation of barrier-free environment, rehabilitation of persons with disability, unemployment and establishment of homes for persons with severe disability, etc

Main Provisions of the Act:

- Prevention and Early Detection of Disabilities
- Education
- Employment
- Non-discrimination
- Research and Manpower Development
- Affirmative Action
- Social Security
- Grievance Redressal

Prevention and Early Detection of Disabilities:

- Surveys, investigations and research shall be conducted to ascertain the cause of occurrence of disabilities
- Various measures shall be taken to prevent disabilities. Staff at the Primary Health Centre shall be trained to assist in this work
- All the children shall be screened once in a year for identifying "at-risk" cases
- Awareness campaigns shall be launched and sponsored to disseminate information
- Measures shall be taken for pre-natal, perinatal, and post-natal care of the mother and child

Education

- Every child with disability shall have the right to free education till the age of 18 years in integrated schools or special schools
- Appropriate transportation, removal of architectural barriers and restructuring of modifications in the examination system shall be ensured for the benefit of children with disabilities
- Children with disabilities shall have the right to free books, scholarships, uniform and other learning material
- Special schools for children with disabilities shall be equipped with vocational training facilities

- Non-formal education shall be promoted for children with disabilities
- Teachers Training Institutions shall be established to develop requisite manpower
- Parents may move to appropriate fora for the redressal of grievances regarding the placement of their children with disabilities.

Employment

- Three percent of vacancies in government employment shall be reserved for people with disabilities, one percent each for persons suffering from: Blindness or Low Vision, Hearing Impairment and Locomotor Disabilities & Cerebral Palsy
- Suitable scheme shall be formulated for a) The training and welfare of persons with disabilities b) The relaxation of upper age limit c) Regulating the employment d) Health and safety measures and creation of a non-handicapping and e) Environment in places where persons with disabilities are employed
- Government Educational Institutes and other Educational Institutes receiving grant from Government shall reserve at least three percent seats for people with disabilities
- No employee can be sacked or demoted if they become disabled during service, although they can be moved to another post with the same pay and condition. No promotion can be denied because of impairment.

Affirmative Action

- Aids and appliances shall be made available to people with disabilities
- Allotment of land shall be made at concessional rates to the people with disabilities for: house, business, special recreational centres, special schools, research schools, and factories by entrepreneurs with disability

Non-discrimination

- Public building, rail compartments, buses, ships and aircrafts will be designed to give easy access to disabled people
- In all public places and in waiting rooms, toilets shall be wheel chair accessible. Braille and sound symbols are also to be provided in lifts

- All the places of public utility shall be made barrier-free by providing ramps

Research and Manpower Development

- Research in the following areas shall be sponsored and promoted: — Prevention of Disability. — Rehabilitation including CBR
- Development of Assistive Devices
- Job Identification
- On Site Modifications of Offices and Factories
- Financial assistance shall be made available to the universities, other institutions of higher learning, professional bodies and nongovernment research units or institutions, for undertaking research for special education, rehabilitation and manpower development

Social Security

- Financial assistance to non-government organization for rehabilitation of persons with disabilities
- Insurance coverage for the benefit of the government employees with disabilities Unemployment allowance to people with disabilities registered with the special employment exchange for more than a year and who could not be placed in any gainful occupation.

Grievance Redressal

- In case of violation of rights as prescribed in the act people with disabilities may move an application to : Chief Commissioner for Persons with Disabilities in the Centre and Commissioner for Persons with Disabilities in the States

2.9 Let Us Sum Up

Overall, the Rehabilitation Council of India plays a pivotal role in ensuring that individuals with disabilities receive high-quality education and rehabilitation services, and that professionals in the field are adequately trained and certified to provide these services. The Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995 is a significant legislation in India aimed at safeguarding the rights and promoting the inclusion of persons

with disabilities (PWDs). The Act establishes special employment exchanges, facilitates barrier-free access to buildings and public transportation, and outlines provisions for the appointment of guardians for mentally ill persons. It also emphasizes the need for research and training to enhance opportunities and living standards for PWDs.

2.10 UNIT END EXERCISE

1. What are the primary objectives and functions of the Rehabiliation Council of India in promoting the education and training of professionals working with individuals with disabilities.
2. How has the person with Disabilities Act, 1995 influenced the legal and social framework for the right and rehabiliation of persons with disabilities in India.

2.11 CHECK YOUR PROGRESS

1. The Rehabilitation Council of India (RCI) is a statutory body established under the _____ Act to regulate and standardize rehabilitation services and professionals in India.
2. One of the key functions of RCI is to prescribe the qualifications and _____ for various rehabilitation professionals, ensuring a high standard of education and training.
3. RCI plays a vital role in accrediting institutions that offer courses related to rehabilitation, which helps in maintaining the quality of _____ in this field.
4. The main office of the Rehabilitation Council of India is located in _____, which is the capital of India.
5. The Persons with Disabilities Act, 1995, commonly known as the PWD Act, aims to promote and protect the rights of persons with disabilities in India by ensuring equal opportunities, full participation, and _____for them.
6. The PWD Act, 1995, also makes it a legal obligation for the government to reserve a certain percentage of vacancies in government jobs for

persons with disabilities and to provide them with _____to facilitate their employment and career advancement.

7. Under the provisions of the PWD Act, 1995, public buildings, transportation, and communication services are required to be made accessible to persons with disabilities through the installation of ramps, handrails, accessible toilets, and the _____

2.12 SUGGESTED READINGS

Rehabilitation Council of India https://rehabcouncil.nic.in/

Department of Empowerment of Persons with Disabilities

https://disabilityaffairs.gov.in/content/

Persons with Disability Act, 1995

https://niepmd.tn.nic.in/documents/PWDACT.pdf

Government of Assam, Skill, Employment & Entrepreneurship Directorate of Employment and Craftsmen Traininghttps://dect.assam.gov.in/frontimpotentdata/pwd-act-1995

2.13 ANSWERS TO CHECK YOUR PROGRESS

1. Rehabilitation Council of India Act, 1992
2. Standards
3. Education
4. New Delhi
5. Inclusion
6. Reasonable accommodation
7. Use of sign language interpreters

NATIONAL EDUCCATIONAL POLICY (1986) AND POA OF 1992

Unit 1 **Lesson: 3**

STRUCTURE

3.1 INTRODUCTION

After Independence, the major concern of Government of India has been to evolve its own indigenous system of education and break away from the British legacy. The country focused on

quality-based education for all as education is universally accepted as a powerful tool for the development of individual as well as society as a whole. On the recommendations of the education commission (1964-66),in 1968 first education policy in India was rolled out. In the 1980s, India was in the midst of economic reforms and liberalization under the leadership of Prime Minister Rajiv Gandhi. These reforms aimed to open up the Indian economy and make it more globally competitive. Education was seen as a crucial element in this process of modernization. The 1980s also saw significant advancements in technology, particularly in the field of information technology. This created a need for a skilled workforce capable of meeting the demands of the emerging knowledge-based economy. India is a diverse nation with multiple languages, cultures, and regional variations. The NPE recognized the need to preserve and promote this diversity while providing a common educational framework.

Several education commissions and committees had been set up in the years leading to 1986. The NPE, 1986 was followed by its Programm of Action (1992) which provided the road map for its implementation.

3.2. OBJECTIVES

After going through this lesson, the students will be able to

- Elucidate the historical context of National Policy on Education, 1986
- Explain the objectives of National Policy on Education
- Explain the recommendations of National Policy on Education,1986
- Discuss background of Program of Action 1992
- Analyze the implications of Program of Action 1992

3.3 BACKGROUND OF NATIONAL EDUCATIONAL POLICY (1986)

The National Education Policy (NEP) of 1986, also known as the New Education Policy 1986, was a significant policy document in the history of education in India. It aimed to reform the education system in the country and address various issues in the field of education. The National Education Policy of 1986 was introduced against the backdrop of several challenges and concerns in India's education system. It was formulated in response to the need for educational reforms and the changing socio-economic and technological landscape in the country.The National Policy on Education (1986) was preceded by policy document 'Challenges of Education -A Policy Perspective 'in 1985 that was widely discussed across the country and the suggestions received were incorporated in NPE 1986. The National Policy on Education (NPE) was adopted by the parliament in May1986. The policy considered that "education is a unique investment in the present and future" (NPE, 1986). The main objectives of the NEP 1986 were:

- To promote social and national integration.
- To establish a common educational structure.
- To provide opportunities for equal access to education.
- To reduce the pressure on students during the examination system.

- To inculcate values and awareness of the environment.
- To make education relevant to the needs of the economy.

3.4 RECOMMENDATIONS OF NEP (1986)

The National Education Policy (NEP) of 1986 was a significant educational reform policy in India that aimed to address various issues in the education system and promote the development of a knowledge-based society. It was formulated by a government-appointed committee chaired by Dr. D. S. Kothari. The major recommendations of the National Policy on Education (1986) are as follows:

- National System of Education: NPE 1986 suggested a National System of Education. The National System envisaged a common educational structure i.e. 10+2+3 as suggested by NPE 1968. This National Systenm of Education was based on a national curricular framework comprising some common core along with some flexible components. The common core components contained the history of India's freedom movement, the constitutional obligations and other contents essential to nurture national identity.
- **Improving Quality of Education:** Enhancing the quality of education was a central theme of the policy. The policy recommended curricular reforms to make education more relevant, practical, and value-based. Encouraging a shift from the rote learning system to a more child-centered, activity-based approach to teaching and learning. The policy emphasized child centered and activity-based process of learning and total exclusion of corporal punishment.
- **Examination Reforms:** Reevaluating the examination system to reduce the pressure on students and promote a more comprehensive evaluation of their skills and knowledge. Introducing continuous and comprehensive evaluation (CCE) methods.
- **Research and Development:** Encouraging research in education and providing support for educational research institutions. Promoting innovations in education and curriculum development. The policy

recommended the establishment of organizations and institutions for educational research and development. This would help in assessing the effectiveness of educational programs and curricula.

- **Promotion of Indian Languages:** Promoting the study of regional languages and mother tongues as mediums of instruction. Recognizing the importance of multilingualism and encouraging the learning of additional languages. The policy aimed to promote Indian languages and culture, including classical languages. It recommended the development of textbooks and teaching materials in regional languages.
- **Promotion of Open and Distance Learning**: The NEP 1986 recognized the importance of open and distance learning to reach out to a wider audience. It recommended the development of open universities and open schooling systems.
- **Nutrition and Health Education**: It called for the integration of nutrition and health education into school curricula to promote overall well-being among students.
- **De-linking of Degrees from Jobs:** NPE laid stress on delinking degrees from jobs in selected areas. The National Evaluation Organization was proposed to be established to conduct tests on a voluntary basis to determine the suitability of candidates for specific jobs. Rural Universities and Institutes: The policy recommended establishing of rural universities and institutions based on Gandhian basic Education.
- **Open University and Distance Education:** The Policy recommended that the Open learning system has been started to widen the access to higher education keeping in view the unique needs of learners and the importance of flexibility in Educational Policies in India education. For school dropouts, children from habitations without schools, girls having problem in attending school, and working children non formal education program of comparable quality was suggested through non-formal educational system.The Policy assigned responsibility to Indira Gandhi National Open University to coordinate the distance learning system in the country.

· **Education of the Handicapped:** The National Policy on Education (NPE) of 1986 in India made several recommendations regarding the education of the handicapped, with the aim of providing equal educational opportunities and promoting inclusivity. The NPE 1986 aimed to ensure that education was inclusive and accessible to all, irrespective of disabilities. While significant progress has been made in India since the policy's introduction, there are ongoing efforts to further improve the quality of education and support services for disabled individuals. Here are some of the key suggestions from the NPE 1986:

1. **Integration into Mainstream Schools:** The NPE 1986 advocated for the integration of disabled children into regular schools to the maximum extent possible. This meant that children with disabilities should be educated alongside their non-disabled peers in regular classrooms.

   Example: A child with a visual impairment could attend a regular school and receive education with the help of Braille textbooks and audio aids, thus studying alongside their non-disabled classmates.

2. **Special Education:** The policy recognized the need for special schools and facilities for children with severe disabilities that may not be able to integrate into regular schools. These special schools were expected to provide a supportive environment tailored to the specific needs of disabled students.

   Example: A child with severe autism or intellectual disabilities might attend a special school where teachers are trained to work with such students, and the curriculum is adapted to their needs.

3. **Provision of Support Services:** The NPE emphasized the importance of providing support services, such as special educators, speech therapists, and assistive devices, to facilitate the education of disabled students.

   Example: A child with a speech and language disorder could receive speech therapy services within the school premises to help improve their communication skills.

4. **Awareness and Training:** The policy recommended awareness

programs and training for teachers and administrators to better understand the needs of disabled students and to create a more inclusive educational environment.

Example: Teachers in a mainstream school could undergo training on how to accommodate students with various disabilities, ensuring that these students have equal access to education.

5. **Curricular Adaptations:** The NPE encouraged adapting the curriculum to suit the needs and abilities of disabled students, making necessary modifications and accommodations to ensure they can access and engage with the content.

   Example: If a student has a motor disability, the curriculum could be adjusted to allow for alternative methods of assessment, such as oral exams, to account for the student's difficulty in writing.

6. **Provision for Scholarships and Financial Support:** The policy also recommended scholarships and financial aid to support the education of children with disabilities, especially those from economically disadvantaged backgrounds.

   Example: A student with a disability who comes from a low-income family may be eligible for a scholarship that covers the cost of assistive devices, special education, or other support services.

7. **Vocational Training:** Adequate arrangements should be made for vocational training to the disabled, teacher training programmes, and voluntary effort for the education of the disabled.

8. **Access to Infrastructure**: The NPE 1986 emphasized the need to make educational infrastructure, including schools and colleges, accessible to individuals with disabilities. This includes providing ramps, accessible restrooms, and other facilities to accommodate students with mobility impairments.

   Example: Constructing ramps and wider doorways in schools to ensure students who use wheelchairs can easily access classrooms and facilities.

9. **Aids and Appliances**: The policy encouraged the provision of aids and

appliances, such as hearing aids, mobility aids, and assistive technology, to students with disabilities to enhance their participation in the educational process.

Example: Providing a student with a hearing impairment with a hearing aid to improve their ability to hear and participate in classroom discussions.

10. **Early Intervention**: The NPE highlighted the importance of early intervention for handicapped children. It stressed the need for identifying disabilities at an early stage and providing appropriate support and services to enhance their development.

    Example: Early intervention centers and programs were established to diagnose disabilities in children at a young age and provide therapies and assistance to address their specific needs.

- **Teacher Education:** Recognizing the importance of well-trained teachers, NEP 1986 recommended improvements in teacher education. Professional development opportunities for teachers, including in-service training and retraining programs, were highlighted. The policy recommended improving the quality of teacher education by setting standards and enhancing the status and working conditions of teachers. It also called for the establishment of District Institutes of Education and Training (DIETs) to provide pre-service and in-service training to teachers.
- **Rural Universities and Institutes:** The policy recommended establishing of rural universities and institutions based on Gandhian Basic Education. Promoting access to education for all sections of society and reducing disparities among regions and social groups. Ensuring that education is affordable and accessible, even in remote areas.
- **Early Childhood Care and Education:** The policy gave due importance to education and care of young children Particularly the first generation learners recommended Early Childhood Care and Education program for children integrated with Integrated Child Development

service, Balwadis, Pre-Primary schools of the State government and Municipalities, Day-care centers.

- **Elementary Education and Operation Blackboard:** National Policy of Education has given a new thrust to three aspects of elementary education which are: i. universal enrolment, ii. universal retention of children up to 14 years of age; and ii. a substantial improvement in the quality of education. Realizing the insufficient facilities in schools, the Scheme of Operation Blackboard was suggested to provide essential facilities in primary schools. This scheme envisaged on providing three reasonably large rooms that can be used in all weather, and blackboards, maps, charts, toys, other necessary learning aids and school library along with at least three teachers (50% women).
- **Secondary Education:** Regarding Secondary education the Policy recommended provision of establishing school system in the unserved areas and providing special facilities for the children with talents and high achievers. The following facilities were suggested: I.) Programme to widening access to secondary education enrolment of girls, SCs and STs, particularly in unserved areas. ii.) Programme of consolidation in other areas; iii.) Pace-setting residential schools, NavodayaVidyalayas, for children with special talent with reservation for the rural areas, SCs and STs.
- **Vocationalization of Education:** Policy recognized the need and importance of promoting vocational education and recommended various vocational courses at the +2 stage of secondary education. It was proposed that "vocational courses to cover 10 percent of higher secondary students by 1995 and 25 percent by 2000" (NPE, 1986).
- **Higher Education:** It suggested all round improvement in the existing system and protection of system from degradation, encouraging the establishment of autonomous department and Autonomous Colleges according to UGC directives. It also suggested increased flexibility in the combination of courses with transformation of teaching methods by introducing Audio visual aids and electronic equipment. Recommended systematic assessment of Teachers' performance. Special emphasis

given to research facilities in universities and encouraged interdisciplinary research. The NEP 1986 called for the establishment of colleges and universities in underrepresented areas. It also recommended increasing funding for higher education and improving the quality of higher education institutions.

- **Adult Education:** Promoting adult education programs to enhance the skills and knowledge of adults who missed out on formal education. Addressing issues like functional literacy, skills development, and community participation.

3.5 BACKGROUND OF PROGRAMME OF ACTION (POA, 1992)

In 1989, the government formed a committee under the chairmanship of Acharya Ramamurthy to review the effectiveness of National Policy on Education 1986. The Committee submitted a report named "Towards an Enlightened and Humane Society". Before considering the suggestions of the Ramamurthy Committee, the Government appointed another committee, which was constituted in July 1991 which took into consideration the recommendations of Rammurti committee along with some modification in NPE 1986. Shri Janardhan Reddy was the chairperson of this committee and submitted its report in Jan 1992. This document is known as 'Programme of Action 1992'. The POA,1992, has 23 sections. The main emphasis of this Policy was to ensure quality in education by removing social, economic, regional and gender disparities. It aimed to promote national integration, a sense of common citizenship and culture, inculcation of values among young minds and improve the quality of education at all levels

3.6 RECOMMENDATIONS OF POA, 1992

The Program of Action 1992 (PoA 1992) is a crucial document that complements the National Policy on Education (NPE) of 1986 in India. It was formulated to provide a detailed roadmap for the implementation of the NPE 1986. The Program of Action (PoA), 1992, was a framework designed to implement the National Policy on Education (NPE), 1986, in India. The NPE, 1986, was a landmark document that outlined the government's vision for education in the country. The Program of Action built upon this vision and

provided a more detailed roadmap for achieving the goals set out in the NPE, 1986. Below are some key points regarding the Program of Action (PoA) 1992 in the context of the National Educational Policy 1986:

- **Universalization of Elementary Education:**
- The PoA aimed to achieve universal elementary education, ensuring that every child in the age group 6-14 had access to free and compulsory education, with a particular emphasis on providing education for girls and children from marginalized communities.
- It emphasized the need to reduce dropout rates and ensure that children from marginalized communities had equal opportunities for education.
- **Improving the Quality of Education:**
- The Program of Action focused on enhancing the quality of education at the elementary level. This involved curriculum reforms, teacher training, and the introduction of innovative teaching methods.
- It emphasized the development of learning materials that were locally relevant.
- **Vocational Education and Skill Development:**
- The PoA recognized the importance of vocational education and recommended the integration of vocational courses at the secondary level to equip students with employable skills.
- Efforts were made to establish vocational training centers and promote vocational courses in schools.
- **Education for Girls and Women:**
- The program stressed the need for promoting the education of girls and women, addressing gender disparities in education.
- Special measures were proposed to increase female literacy rates and ensure girls' participation in education.
- **Non-Formal Education:**
- To cater to the educational needs of out-of-school children and adults, the PoA emphasized the expansion of non-formal education programs.

- Non-formal education centers and adult education centers were to be established to reach underserved populations.

❖ **Funding and Resource Mobilization:**

- The program recognized the need for increased funding and resource mobilization for education.
- It recommended partnerships with private and non-governmental organizations for the development of education infrastructure and programs.

❖ **Teacher Training and Professional Development:**

- The PoA emphasized the improvement of teacher training programs to enhance the quality of teaching.
- It recommended regular in-service training for teachers to keep them updated with the latest teaching techniques and methodologies.

The Program of Action, 1992, included several recommendations for the education of students with special needs in India. These recommendations aimed to promote inclusive education and ensure that students with disabilities and special needs received appropriate educational opportunities. Here are some of the key recommendations along with examples:

1. Identification and Assessment:

- **Recommendation:** The PoA emphasized the importance of early identification and assessment of students with special needs to determine their specific requirements.
- **Example:** Schools were encouraged to conduct regular assessments and screenings to identify students with disabilities. For instance, a school might use screening tools to identify students with learning disabilities or vision impairments.

2. Special Education Programs:

- **Recommendation:** The program suggested the development of special education programs and services tailored to the unique needs of students with disabilities.

- **Example:** Special education centers or resource rooms within schools were established to provide individualized support. For example, a resource room could offer additional tutoring or assistive technology for students with learning disabilities.

3. Inclusive Education:

- **Recommendation:** The PoA promoted inclusive education, where students with disabilities were integrated into regular classrooms alongside their peers without disabilities.
- **Example:** In an inclusive classroom, a student with a physical disability might use assistive devices like ramps or modified seating arrangements to access the classroom and participate in class activities.

4. Curriculum Adaptations:

- **Recommendation:** The program recommended adapting the curriculum to meet the diverse needs of students with disabilities.
- **Example:** In an inclusive classroom, a teacher might modify assignments or use alternative teaching methods to accommodate students with different learning styles. For instance, a student with a visual impairment might receive Braille materials or access digital texts.

5. Teacher Training:

- **Recommendation:** The PoA emphasized the need for teacher training and professional development in inclusive education and strategies for working with students with special needs.
- **Example:** Teachers underwent training to learn how to use augmentative and alternative communication (AAC) devices to facilitate communication for students with speech and language disorders.

6. Accessibility and Infrastructure:

- **Recommendation:** The program highlighted the importance of creating accessible physical environments and facilities in schools for students with disabilities.

- **Example:** Schools were required to have ramps and elevators for students with mobility impairments. Additionally, classrooms were equipped with hearing loop systems for students with hearing impairments.

7. Support Services:

- **Recommendation:** The PoA suggested providing support services such as speech therapy, occupational therapy, and counseling to students with disabilities.
- **Example:** A student with autism might receive individualized behavior therapy or counseling sessions to address social and emotional challenges.

8. Parent and Community Involvement:

- **Recommendation:** The program stressed the importance of involving parents and the community in the education of students with special needs.
- **Example:** Parent-teacher associations and support groups were formed to help parents of children with special needs share information, experiences, and strategies for better supporting their children's education.

3.7 LET US SUM UP

The recommendations outlined in the National Policy on Education 1986 aimed to reform and modernize the Indian education system, making it more inclusive, of higher quality, and better aligned with the needs of society. Many of these principles and objectives have continued to influence subsequent educational policies and reforms in India. NEP 1986 aimed to revamp the Indian education system to meet the needs of a rapidly changing society and economy. It provided a comprehensive framework for educational development in the country, emphasizing access, quality, and relevance. The Program of Action, 1992, aimed to address the shortcomings of the education system in India and align it with the broader goals set out in the National Policy on Education, 1986. It played a crucial role in shaping educational reforms in the country and provided

a roadmap for the government to work towards the goals of universalization of education and quality improvement.

3.8 UNIT END EXERCISE

Q1. What is the major recommendation of NPE 1986 regarding education of the handicapped?

Q2. What do you understand by vocational education? Illustrate with examples

Q3. Write down main aim of program of Action 1992?

Q4. What implementations were suggested for education of students with special needs?

3.9 SUGGESTED READINGS

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NATIONAL POLICY FOR PERSON WITH DISABILITY, 2006

Unit 1 **Lesson: 4**

STRUCTURE

4.1 INTRODUCTION

The national policies are framed by the government to implement measures for the welfare of its citizens. These programs are usually bottom up involving the local or regional authorities, regional development agencies up to the national level agencies. According to the Census 2001, there are 2.19 crore persons with disabilities in India who constitute 2.13 percent of the total population. This includes persons with visual, hearing, speech, locomotor and mental disabilities. Seventy five per cent of persons with disabilities live in rural areas, 49 per cent of disabled population is literate and only 34 per cent are employed. The earlier emphasis on medical rehabilitation has now been replaced by an emphasis on social rehabilitation. There has been an increasing recognition of abilities of persons with disabilities and emphasis on mainstreaming them in the society based on their capabilities in order to make this a reality various policies have been enacted and legal framework have been developed.

4.2. OBJECTIVES

After going through this lesson, the students will be able to

- Elucidate the background of National Policy for Disability, 2006
- Explain the recommendations of National Policy for Disability, 2006

4.3 BACKGROUND OF NATIONAL POLICY FOR DISABILITY, 2006

The National Policy for Persons with Disabilities (PwDs), 2006, is a comprehensive policy framework in India aimed at promoting the well-being and empowerment of persons with disabilities. It addresses various aspects of the lives of people with disabilities, including their rights, accessibility, education, employment, healthcare, and social integration. The National Policy for Persons with Disabilities, 2006, was a significant step towards recognizing the rights of persons with disabilities in India and promoting their full and equal participation in society. It aimed to create an inclusive and accessible environment that allows PwDs to lead a life with dignity and opportunities for growth.

4.4 VARIOUS INTERVENTIONS OF NATIONAL POLICY FOR DISABILITY, 2006

1. **Definition of Disability**: The policy provides a broad definition of disability, encompassing a wide range of disabilities, including physical, sensory, intellectual, and mental disabilities. This inclusive definition recognizes the diverse needs of PwDs. The policy recognizes conditions like autism, cerebral palsy, and multiple disabilities, which may not have been included in earlier policies, highlighting its commitment to inclusivity.
2. **Equality and Non-Discrimination**: The policy underscores the principle of equality for persons with disabilities. It emphasizes that PwDs should enjoy the same rights and privileges as any other citizen and should not face discrimination in any aspect of life.

The Right to Education Act of 2009, which ensures free and compulsory education for all children, has provisions to provide inclusive education for children with disabilities, reflecting the policy's principles. In educational institutions, reasonable accommodations are provided to students with disabilities. This can include special classrooms, assistive devices, and extra time during exams.

3. **Accessibility**: The policy focuses on making the physical environment, public spaces, transportation, and information and communication

technology (ICT) accessible to PwDs. It calls for the removal of barriers that hinder their full participation and inclusion in society.The Accessible India Campaign, launched by the Government of India, aims to create accessible public infrastructure and transportation systems, aligning with the policy's principles of accessibility.The implementation of accessible ramps, sign language interpreters at public events, and making websites and mobile apps accessible to individuals with visual impairments.

- **Education**: One of the crucial aspects of the policy is the promotion of inclusive education. It encourages mainstream educational institutions to admit children with disabilities and provides guidelines for the development of special educational services and support for PwDs. The policy promotes inclusive education and vocational training for persons with disabilities to enhance their skills and employability. It stresses the need to provide adequate support and facilities to ensure quality education.TheSarvaShikshaAbhiyan (Education for All) program in India strives to ensure inclusive education for children with disabilities, providing specialized support and resources.

4. **Employment**: The policy recognizes the right of PwDs to work and earn a livelihood. It outlines measures to enhance their employability, create job opportunities, and eliminate discrimination in the workplace. It also emphasizes the importance of vocational training and skill development.It encourages public and private sector employers to provide equal opportunities for persons with disabilities, including reasonable accommodations, to promote their employment and economic independence.Various government jobs have reserved quotas for PWDs, and private companies have also started recognizing the benefits of a diverse workforce by hiring individuals with disabilities.
5. **Social Security**: Recognizing the vulnerability of PwDs, the policy calls for the development of social security schemes and programs to provide financial assistance, healthcare, and rehabilitation services.he policy addresses the need for accessible and affordable healthcare services, rehabilitation, and social security for persons with disabilities to

improve their quality of life and well-being.

6. **Healthcare and Rehabilitation**: The policy underscores the importance of healthcare and rehabilitation services. It advocates early intervention, medical support, assistive devices, and therapy to enhance the quality of life of PwDs.Various government health insurance schemes and initiatives provide coverage for persons with disabilities, ensuring they have access to necessary medical care and rehabilitation services.The establishment of special clinics and healthcare facilities catering to the needs of individuals with disabilities.
7. **Research and Development**: The policy encourages research and development in the field of disability. This includes research on assistive devices, technologies, and other innovations to improve the lives of PwDs.The development of low-cost mobility aids, speech-to-text software, and other assistive devices that help PWDs lead more independent lives.
8. **Awareness and Sensitization**: The policy emphasizes awareness and sensitization programs to change societal attitudes and perceptions towards PwDs. It aims to reduce stigma and discrimination by promoting a more inclusive and understanding society.Programs like Accessible India Campaign and various NGOs conduct awareness programs to change attitudes and behaviors.
9. **Legal Framework**: The policy recognizes the need for a robust legal framework to protect and promote the rights of PwDs. It references existing laws and international conventions such as the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD).
10. **Implementation and Monitoring**: Effective implementation and monitoring mechanisms are considered crucial for the success of the policy. Various government ministries and departments have initiated programs and policies to implement the National Policy for Persons with Disabilities, such as the Department of Empowerment of Persons with Disabilities.It emphasizes the need for periodic assessments and reports to ensure that the objectives of the policy are met.
11. **Coordination and Collaboration**: The policy promotes coordination

and collaboration among various stakeholders, including government agencies, non-governmental organizations, and disabled people's organizations, to work together in implementing the policy's provisions.

12. **Empowerment and Participation**: It recognizes the importance of empowering PwDs and involving them in decision-making processes that affect their lives.
13. **Women with disabilities:** Women with disabilities require protection against exploitation and abuse. Special programmes will be developed for education, employment and providing of other rehabilitation services to women with disabilities keeping in view their special needs. Special educational and vocation training facilities will be setup. Programmes will be undertaken to rehabilitate abandoned disabled women/ girls by encouraging their adoption in families, support to house them and impart them training for gainful employment skills. The Government will encourage the projects where representation of women with disabilities is ensured at least to the extent of twenty five percent of total beneficiaries.
14. **Issue of Disability Certificates**: The Government of India has notified guidelines for evaluation of the disabilities and procedure for certification. The Government will ensure that the persons with disabilities obtain the disability certificates without any difficulty in the shortest possible time by adoption of simple, transparent and client-friendly procedures.

4.5 LET US SUM UP

The National Policy for Persons with Disabilities 2006 provides a comprehensive framework to promote the rights and well-being of persons with disabilities in India. The examples mentioned illustrate how this policy has been translated into actions and subsequent legislative changes to ensure equal opportunities and inclusion for persons with disabilities in various spheres of life. It serves as a guiding document for government initiatives and actions that support and empower people with disabilities in India. It is a comprehensive framework that aims to ensure the rights and well-being of individuals with disabilities in India. While there have been significant advancements since its introduction, the need for continued efforts to improve the lives of PWDs,

eliminate discrimination, and create an inclusive society remains paramount. Various programs and initiatives have been launched at both the national and state levels to make this policy a reality and promote the inclusion and empowerment of persons with disabilities in all aspects of life.

4.6 UNIT END EXERCISE

Q1. What are the key objectives outlined in the National Policy for Disability (2006)?

Q2. How does the National Policy for Disability (2006) address the issue of inclusivity and active participation of individuals with disabilities in various aspects of society, such as education, employment, and social activities?

Q3. Identify and describe two key initiatives introduced by the National Policy for Disability (2006) to promote the well-being and inclusion of individuals with disabilities.

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MENTALLY RETARDED CHILDREN

Unit –II **Lesson 5**

Structure

5.1 INTRODUCTION

In the classification of exceptional children, the mentally retarded (MR) children belong to the lower end of the scale of intelligence and scholastic aptitude quite opposite and contrary to gifted and creative children who lie at the high end of the scale. These are the children who cannot mentally function as well as most of the children in the society do. These children are subnormal in intelligence and behavior.

As a matter of terminology, such children are known by so many names other than mentally retarded, viz.: feeble minded, mentally handicapped, mentally deficient, mentally subnormal or mentally sub-average, etc. by whatever name we recognise them, it connotes the sub-average mentally functioning of a group of children which affects not only their behaviour and future development but also creates serious problems for the people responsible for their welfare. Mental retardation is pervasive and is seen in all societies and cultures in varying proportions.

Who are these children? What are their specific characteristics and

requirements? What can be done for them especially in the sphere of education? These and other such questions are of concern to all the members of the society, particularly the teachers and the parents. The present unit will deal with all these and other related aspects. The students will get a clear idea about the MR Children, their types, their characteristics and problems.

Before going further, let us identify sum of the important objectives which the students can achieve after reading the text on MR children

5.2 OBJECTIVES

After you have completed this unit, you should be able to;

- Define mental retardation;
- Know about characteristics of mental retardation;
- Describe the different forms of mental retardation
- To know about the criteria for identification of mental retardation;

5.3 CONCEPT: MENTALLY RETARDATION

Mental Retardation: Mental retardation means limited development of mind. A mentally retarded has limited abilities. Mentally handicapped are those children who deviate from the normal children to the negative side in mental dimensions.

They have sub-normal mental development. They possess limited intelligence and social inadequacy. It is generally believed that children who possess I.Q below 70 are mentally handicapped or mentally retarded children. But there are some psychologists and educationists who hold that educationally backward children can also be called mentally handicapped children.

Meaning and Definition of Mental Retardation:

The term 'mental retardation' or 'mental deficiency' has been defined by several persons in several ways. Some important definitions are:

1. Rosen, Fox and Gregory (1972):

Mental retardation refers to a chronic condition present from birth or early childhood which is characterized by both impaired intellectual functioning and impaired adaptation to the daily demands of the individual's social

environment.

2. Page (1976):

Mental Deficiency is a condition of sub-normal mental development, present at birth or early childhood and characterised mainly by limited intelligence and social inadequacy.

3. British Mental Deficiency Act (1981):

Mental retardation is a condition of arrested or incomplete development of mind existing before the age of 18 years whether arising from inherent causes or induced by disease or injury.

4. American Association on Mental Deficiency (1983):

Mental retardation refers to significantly sub-average general intellectual functioning existing concurrently with deficits in adaptive behaviour, and manifested during the development period.

On a critical examination, we can say that all these definitions agree that:

1. Mental retardation is a condition or state of mind.
2. It is related to the sub-normal development of the mind or brain.
3. It is not a disease nor a medical syndrome with a specific cause. A number of specific identified causes involving both the inherent and external factors may be responsible for it.
4. The deficiency may be observed at birth or manifested later during the course of development, generally before the end of years of adolescence.

Among all these definitions, the last definition put forth by the American Association on Mental Deficiency seems to be the most comprehensive. It is the latest in the sense that it reflects the modern viewpoints in understanding care and education of the mentally retarded.

5.3.1 Characteristics, needs and problems of MR children.

Mentally retarded children exhibit the following chief Characteristics:

(a) Limited intelligence.

Generally intelligence is defined as the ability to learn useful information and

skills, adapt to new problems and conditions of life, profit from past experiences, engage in abstract and creative thinking, employ critical judgement, avoid errors, surmount difficulties, and exercise foresight. The mentally retarded persons are markedly deficient in all these attributes. Their learning capacity is limited. Their learning depends more on rote memory than on understanding. The errors are repeated again and again. The brightest among the mentally retarded can be taught to read and write.

(b) Social insufficiency.

Mentally retarded children are incapable of adequate self-care self-support or self-management in society. These children also require an undue amount of resistance. Care is taken to feed and dress them until a late age. Association with younger children is very much patient. But adults are largely dependent upon others for their economic welfare. In a continuous study, the British Mentally deficient (BMD) committee has found that only 14 percent of males were almost self-supporting and the remainder contributes nothing. The degree of self-support was even lower among female defectives. Later studies in the field reveal that adult defectives are incapable of handling personal and social affairs with ordinary prudence. If they not guided properly, they engage them-selves in socially undesirable behaviour. The type of behaviour includes stealing, general destructiveness and sex delinquencies.

Mentally retarded persons have little control over their impulses. Their sense of right and wrong is poorly developed. Moreover, their behaviour is determined by the immediate situation. They express their sexual urges freely when stimulated. These social reactions may be controlled with proper supervision.

c) Drives and emotions.

With the degree of mental retardation, the development of drives and emotions vary. Even the basic self-preservation drives are absent with some of the lowest grades. External manifestations of hunger or thirst are not prominent and the individuals make no attempt to avoid injurious stimuli. Their inferior emotional life is very prominent. Biological drives are well developed at the intermediate level but the affective life is mainly limited to the simpler emotions of pleasure, fear, anger and surprise. Most of the studies on mental

retardation reveal that these people rarely experience complex sentiments involving honour, social righteousness and duty.

d. Personality.

We know that now two individuals in this world have the same personality. But in case of mentally retarded people, individual's differences appear to be less prominent than among the general population. Among the retardates, is rare to find individuals who could be described as dynamic, charming, forceful, vicious, obnoxious, or outstanding. Many persons are colorless and tractable individuals. A group of defectives can be influenced easily. They also tend to be submissive. The defectives are either stable, apathetic or unstable and excitable.

e. Organismic inferiority

Mentally retarded persons suffer from general structural and functional inferiority of the entire organism. They learn to talk and walk at a much late age. Defective speech and shuffling gait and walk at a much later age. Defective speech and shuffling gait are two very prominent characteristics of these individuals. In comparison to normal person, their sensory discrimination is less acute. The defectives are relatively insensitive to pain and their auditory and visual defects are common. Normal performance is very rare among mental defectives and they fall short of normal performance on tests of mechanically ability.

Prof.Mangal has summarized these characteristics in the following manner:

1) They are slow learners. It has been found that they take longer time to learn a lesson or a skill.

2) They are poor at following general verbal instructions, unless these are repeated at frequent intervals.

3) Mentally subnormal children lack much in the power of understanding, observation, imagination, thinking, reasoning and ability to generalize.

(4) The areas of their interest, aptitudes and choices are limited.

(5) Their rate of intellectual development is very slow in comparison with a normal children of their age.

(6) They are poor at abstraction and can only think in terms of concrete

objects and situations.

(7) The creative aspect is almost absent in such children.

5.3.2 Needs and causes of Mentally Retarded:

As can be understood from their characteristics discussed above, MR children face a number of problems on the physical aspect as well as on the mental, social and emotional front. On the physical front, they suffer from structural and functional inferiority. They have a shuffling gait and may learn to walk and talk at a later stage of their development. Their body organs like limbs may develop some kind of deformity at any stage of development, particularly before the onset of adolescence.

Studies have revealed that in the case of the educable MR (EMR), the rate of development is only a half to three quarters that of the ordinary children. In the case of Trainable MR group (TMR), the rate would be one third to one half of normal child. These children, therefore, need a lot of care and protection. Parents, elders and teachers have to provide their proper diet, exercises and health care so that they grow and develop to the fullest possible extent. This is quite necessary from early childhood to adolescence stage.

The mentally retarded child is slower also in sensory- motor development as compared to normal child, and thus will take longer time to make progress even in such physical activities as walking to habit training or self-feeding, as well as in language development.

Emotionally, however, his feelings and needs mirror those of normal children. Love and affection and the wining of approval and acceptance are vital to all children, and in this respect at least, the mentally retarded do not differ markedly from their fellows. The emotional demands which they make on adults may, however, end to be greater and their dependence will certainly last longer.

Socially also the MR child demonstrates immaturity and to some degree may remain dependant on adults and require protection, guardianship or guidance all his life. Special Psychological difficulties for retardates are also found in day –to-day life. These are as follows:

(a) Mild depression, feelings and worthlessness and helplessness are

experienced.

(b) As a retardate grows older, he becomes lonely and unable to adjust in the society. Evidence points towards the frustration of psychological and social needs which predispose some retardates to feel angry and rebellious.

(c) Parents of such children develop a guilt complex. Sometimes they do not encourage self-help; rather they continue to dress and feed the child up to and advanced age. As a result, this type of behaviour encourages a dependant style of interaction in the child. Mainly, over protection and denial of parents invite adjustment difficulties in such type of children.

Levels and categories of Mentally Retarded:

The mentally retarded constitute a group quite distinct from the normal and the above – normal. There are identifiable subgroups with some characteristics in common. The mentally retarded can be classified into certain distinct subgroups on the basis of classification discussed below:-

Medical system of classification: This system is related to causality, or medical diagnosis associated with mental retardation. According to this system, the mentally retarded can be classified into the following groups:

Environmentally influenced or cultural-familial group: This consists of the cases for which no precise etiology (causation of mental retardation) can be determined.

Unknown prenatal influence – carrying group: There are many unknown prenatal influences established by genetic factors or unknown influences operative inside the womb of the mother which are responsible for certain types of mental deficiency. This sub-group includes cases arising from unknown prenatal influences such as chromosomal abnormalities, including Down's syndrome.

Infections and Intoxication – caused group: This subgroup includes cases of mental retardation caused by severe infections and intoxicants like rubella, viral infections and maternal disorders.

Trauma or Physical – agent cause group: The cases arising out of physical damage to the brain including prenatal injury and hypoxia at birth are included

in this group.

Gross brain disease oriented group: This group includes the mental retardation cases caused by gross brain diseases like brain tumors and other new growths.

Perinatal conditions – caused group: This group includes the cases arising out of perinatal conditions like extreme immaturity and foetal and/or maternal nutritional disorders.

Intelligence Tests as a Means of Classification: The scores on some standardized intelligence test, like the Stanford Binet scale or the Wechsler scale have been used for classifying the mentally retarded into certain definite subgroups like morons, imbeciles, and idiots. Consequently, the results of intelligence tests in terms of I.Q. became a standard for classification and the I.Q. of 70 was established as the common cut – off score for retardation and consequently the following subgroups based on the different levels of I.Q. emerged.

Subgroups of the Mentally Retarded	I.Q. On Stanford- Binet Scale
Morons	51-70
Imbeciles	25-50
Idiots	Below 25

Note: This approach to classify the mentally retarded solely on the basis of I.Q. was dropped following later researches in the field of mental retardation. It was felt that a certain level of I.Q. does not by itself characterize an individual as a mental retarded.

(3) **Adaptive Behaviour as a Norm for Classification:**

This criterion involves the comparison of an individual's adaptive behavior, with the adaptive behaviour expected of people of his age and cultural group, as a means of assessment. Two aspects are considered for the assessment:

(a) The degree to which the individual is able to function and maintain himself independently.

(b) The success with which he meets his cultural, social and personal responsibilities.

Attempts have been made to devise measures for the assessment of deficiency in adaptive behaviour by use of the 'vineland Social Maturity scale', the 'Adaptive Behaviour Scale', and the 'Max field Buckholz Social Maturity scale'.

The consideration of deficiency in adaptive behaviour together with the very low scores on an intelligence test resulted in the development of an altogether new classification of sub- normality. The terms Moron, imbecile, and Idiot are now completely avoided for determining the levels of retardation. The new terminology in terms of I.Q. scores on different test scales is shown in the table below:

Level of Retardation	**Intelligence quotient (I.Q.)**	
Stanford Binet	**Wechsler scale**	
Profound	Under 20	Under 25
Severe	20-35	25-39
Moderate	36-51	40-54
Mild	52-67	55-69

· A discussion of these categories of retardation in terms of typical subnormal intelligence follows:

(a) Mild retardation:

A majority or approximately eighty five percent (85%) of the retarded are only mildly retarded. As grown-ups these individuals attain intellectual levels comparable to those of the average ten year old child. Their social adjustment may be compared with that of an adolescent. Here too, they lack the innovative and vigorous nature of normal adolescents. They show signs of delayed development early in life and learn to walk, talk, feed and toilet themselves one year later then the average. They may be identified in schools as slow learners and are frequently required to repeat early grades. Speech disturbances are also common among them.

(b) Moderate mental retardation:

Approximately ten percent (10%) of the total mentally retarded have

moderate mental retardation. In adult life these individuals attain an intellectual level similar to that of the average six years old child. Psychically, they appear clumsy, suffer from motor in coordination and present an affable, dull and somewhat vacuous personality. As a result of their inadequate development and deficient capacities and abilities they are regarded as 'trainable' instead of being 'educable' like mildly retarded. They show signs of retardation in almost all areas of development from infancy or early childhood, and though they manage to speak, their rate of learning is too slow. They are unable to do any work that requires initiative, originality, abstract thinking, memory or consistent attention, and cannot be expected to acquire the basic skills of reading and writing.

(c) Severe mental retardation:

Nearly 3.5% of all retarded individuals – mostly children and adolescents – suffer from severe mental retardation. They never attain and intellectual level greater than that of the average four years old child. The mortality rate due to high susceptibility to disease is quite high among these individuals. They are grossly retarded in development from birth or infancy onward and show severe motor and speech deficiency. Sensory defects and motor handicaps are common. The majority of them display relatively little interest in their surroundings and many of them never master even basic skills and functions like feeding and dressing themselves, or bladder and bowel control.

The severe mental retardates are neither 'educable' nor 'trainable' and the majority of them remain dependant on others throughout their lives. They need care and supervision of others with a real need for institutionalization. They may profit from proper care, timely treatment and specialized training and managing their own physical well-being and doing manual labour.

(d) Profound mental retardation:

The profoundly retarded constitute 1.5% of the total mentally retarded population. It is characterized by the most severe symptoms of mental retardation. The individuals belonging to this category never attain in adult life and intellectual level greater than that of the average two years old child. They are severely deficient both in intellectual capacities and adaptive behaviour. The symptoms associated with them are retarded growth, physical deformities,

pathology of the central nervous system, mutism, severe, speech disturbances, and motor in coordination, deafness and convulsive seizures. They are unable to protect themselves against common dangers and are unable to manage their own affairs and satisfy their physical needs. Their life span, as a result of their low resistance, is very short. Such individuals are completely dependent on others and need the care and supervision normally given to an infant.

Commonly Clinical types of Mental Retardation:

The knowledge of well-known categories of Mental deficiency or mental Retardation based on number of clinical symptoms and syndromes is useful in the identification, treatment and care of retardates.

(a) Mongolism.

The mental deficient whose facial characteristics bear a superficial resemblance to members of the Mongolian race are classified as Mongols. The retardation in them ranges from moderate to severe (I.Q. being approximately 20-25).

The Mongoloids tend to be short in stature with small round heads, abnormally short necks, thumbs fingers, slanting almond –shaped eyes, and short flat noses. They usually have a small mouth and fissured and dry lips and tongue, their hands and feet are broad and clumsy, they have a deep voice and their motor coordination is awkward. They are handicapped in any learning or training, but most of them can learn self-help skills, acceptable social behaviour and routine Manual skills.

The causes of mongolism are faulty heredity possible chromosomal anomalies, and metabolic factors like glandular imbalance often involving the pituitary gland. It is irreversible and there is no effective treatment or workable preventive measures.

(b) Cretinism.

This mental deficiency ranging from moderate to severe retardation results from thyroid deficiency. The severity of the disorder depends on the age at which the deficiency occurs as well as the degree and duration of the deficiency.

The physical symptoms in the case of persons suffering from cretinism consist of a dwarf- like, thickset body, coarse and thick skin, short and stubby

extremities, abundant hair of wiry consistency and thick eyelids that give a sleepy appearance. Other pronounced symptoms include a broad, flat nose, large and flabby ears, a protruding abdomen and failure to mature sexually. Early timely treatment in the form of injection of thyroid gland extract produces favourable results in all cases except those of long standing where the damage to the nervous system and to general physical development in beyond repair.

(c) Microcephaly.

This refers to mental deficiency associated with the failure of the cranium to attain normal size on account of impaired development of the brain. The microcephaly has an usually small head which rarely exceeds a circumference of seventeen inches, as compared with the normal of approximately twenty two inches. In addition, he is short statured with the usual cone – shaped skull and receding chin and forehead. Depending upon the degree of severity of mental retardation, microcephaly fall into the profound, severe and the moderate categories of mental retardation.

Both genetic as well as non-genetic factors impair development of brain and thus cause microcephaly. There is no effective medical treatment available for microcephaly if there has been impaired brain development.

(d) Hydrocephaly.

This mental deficiency results from the accumulation of a usually large amount of cerebrospinal fluid within the cranium, causing damage to the brain and enlargement of skull. The degree of mental retardation in the disorder varies from moderate to profound depending upon the extent of neural damage which, in turn, depends upon the age at onset, the duration and also the size of the skull.

The main symptom in hydrocephaly is the gradual increase in the size of the skull. The causes seem to be genetic as well as non-genetic. In some cases, the disorder is present at birth or the head begins to enlarge soon after birth on account of prenatal disturbances. More often, the disorder develops during infancy or early childhood on account of intracranial neoplasm or acute inflammatory brain disease.

(e) Phenylketonuria (PKU).

This disorder has a genetic base and is assumed to be transmitted through a

recessive gene carrying metabolic disturbance. As a result the child at birth lacks an enzyme needed to breakdown phenylalanine, an amino acid found in protein foods. Consequently, there is an abnormal accumulation of phenylalanine in the blood causing damage to brain tissue.

Symptoms like vomiting, a peculiar musty odour, infantile eczema and seizures, motor in coordination, signs of mental retardation and neurological manifestations relating to serve brain damage are common with this disorder. However, the diagnosis of this disorder, however, is primarily made of the basis of the presence of phenylpyruvic acid in the urine.

(f) Amaurotic idiocy.

This is a rare heredity disorder of fat metabolism transmitted as a simple recessive characteristic. It is never transmitted directly from patient to off spring, because death generally occurs before puberty. The only mode of transmission in through the mating persons, who although fee of overt symptoms, are carriers of the defective gene. This disorder has been described to occur in two different forms-infantile and juvenile- depending on the age at which occurs.

The major symptoms of this disorder include muscular weakness, inability to maintain normal posture, loss of ability to grasp objects, visual difficulties leading to progressive blindness, seizures and neurologic manifestations.

Infantile Amaurotic idiocy, also known as Tay – Sachs disease is common among infants. The disorder appears at about six months of age and death occurs between the ages of two and three years. Juvenile Amaurotic Idiocy occurs at five or six years of age and the patient may live up to thirteen years.

5.3.3 Criteria/or Identifying the Mentally Retarded Children:

What are mentally retarded children like? Do they have so different a personality makeup from the normal al to be easily discernible? It is possible to some extent, that the physical appearance of the mentally retarded may give rise to some doubt about their normal intellectual functioning. This, however is not always so, and in many cases the physical appearance gives no indication of mental retardation. Therefore, great care must be taken for the proper

identification and detection of mental retardedness among children. To correctly answer the question what type of child should be labelled as mentally retarded- we have to consider the broader concept of the term 'mental retardation' or 'mental deficiency'. It is also clear in the light of the accepted American Association on Mental deficiency (AAMD) definition, that a mere knowledge of child's low I.Q would not suffice for identifying him as mentally retarded.

The following considerations would also have to be taken into account for the identification of mental retardedness among children:

1. The detection or identification must be carried out during the developmental period, i.e. from the embryonic stage to the end of adolescence.
2. Behaviour should be closely and objectively observed for detecting deficiencies in adaptive behaviour.
3. In case adaptive behaviour is judged to be indicative of possible mental retardation, it should be confirmed through intelligence testing or vice versa.
4. In all cases, the low I.Q and deficient adaptive behaviour both should be used as criteria for detecting mental retardedness.

Let us now discuss the procedures involved in identifying the mentally retarded.

i) **Detection before birth:** By means of certain tests in which a small amount of the fluid surrounding the developing foetus in examined, it is possible to screen metabolic diseases or the incurable chromosomal abnormalities affecting the developing foetus.

ii) **Detection at the time of birth:**Most of the metabolic diseases and developmental defects causing mental retardation may be detected soon after birth. For example, phenylketonuria (PKU) may be easily diagnosed through the detection of phenylpyruvic acid in a newborn infant with the help of urine test or a relatively simple blood test. Similarly, congenital cerebral defects causing biological disorders leading to mental retardation like macrocephaly, microcephaly and hydrocephaly may be detected soon after birth.

iii) **Collecting history of the causation or development of mental retardation:** Adequate information about the history of causation and development of mental retardation can help in the identification of disabilities among the retarded. This may be in the form of genetic information, prenatal history of the child and the mother's condition and experiences during pregnancy, history of labour and delivery, blood group incompatibility, exposure to infection and chronic diseases, happenings in the form of accidents, seizures and impairment in motor and intellectual development, emotional episodes and psychological stresses.

iv) **Assessment of intellectual functioning:** Intelligence test scores (in terms of I.Q.) are used not only for identifying or segregating individuals with subnormal intellectual capacities but also for classifying the severity of their mental retardation into various categories such as moron, imbecile and idiot; or degrees like moderate, severe and profound. However, diagnosis of subnormal intellectual capacity cannot be made merely on the basis of relatively low I.Q.

v**) Assessment in terms of adaptive behaviour:** In addition to the criterion of sub-normal intellectual capacities, an assessment of a child's deficiency in terms of adaptive behaviour and personality problems may also prove helpful in the diagnosis of mental retardation. Personality problems and deficiency in terms of adaptive behaviour may be assessed through close observation, or with the help of tests like 'Adaptive behaviour Scale' and the 'Minnesota Developmental programming System'.

5.4 LET US SUM UP

Mentally retarded children differ from normal in intelligence and adapted behaviour which are observed during 18 years of their lives; (educable I.Q. 60-85, trainable I.Q. 30-59, and custodial I.Q. below 30). The description fits well to the “Six hour retarded child”. Who functions below the normal in the school? Nearly 2.5% children are mild and moderately retarded and 5% are severely retarded.

Mentally retarded occurs due to chromosomal anomalies: e.g. Trisomy -21, translocation, mosicism, turner's syndrome, congenital disorders: galactosemia. Biochemical irregularities: PKU, glactosemia, and certain infections; lead poisoning, Rubella, intoxication, blood group incompatibility:

ABO and Rh; X-ray, birth injuries and trauma, brain diseases, malnutrition and deprivation. There are also certain other unknown factors.

Preventive measures include: vaccination against rubella, amniocentesis, blood transfusion, dietary treatment of PKU and galactosemia, improved maternal malnutrition, early screening and detection. Assessment is done using standardized I.Q. tests, adaptive behaviour tests and functional assessment kits.

Mildly MR and/or EMRs have deficits in learning and memory, attention; inability to delay gratification, distractibility, poor self-concept, impulsivity, external fate control, poor muscular coordination, low creative and physical ability, restricted language code, etc.

These deficits are not organic or fixed. Improvement can take place through repetition, over learning, discrimination training, motivational measures using social reinforcement, peer modelling, perceptual training, motor coordination training, language enrichment and personality building programmes; besides, early school intervention, presentation of learning materials, using concrete pictorial and symbolic sequences and planned interventions in all areas of behaviour.

For mild retarded and/or EMR group integrated education, partial integration, i.e. combination of special and regular classes have been emphasized, whereas for the TMR children special schools or residential setting is a more realistic measure. Mainstreaming has been the focus for mild MR children than self-contain special classes.

To make mainstreaming/integration successful for the EMR, proper assessment, placement, parent involvement, resource room instruction, individualized education programmes are a must. The regular classroom teachers and the resource room teachers are to be turned to the needs of the PMR children.

5.5 UNIT END EXCERCISE

1) Define mental retardation and explain its various categories.
2) How would you identify a mentally retarded child? Explain the procedures.
3) Who are mentally retarded children? Describe the causes of mentally

retarded.

5.6 SUGGESTED READINGS

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EDUCATION OF MENTALLY RETARDED CHILDREN

Unit –II **Lesson: 6**

Structure

6.1 Introduction

Education is a fundamental right for all children, including those with intellectual disabilities. Intellectual disabilities, often characterized by significant limitations in cognitive functioning and adaptive behaviors, can present unique challenges in traditional educational settings. To address these challenges, specialized educational programs are designed to meet the diverse needs of these children, ensuring they receive a meaningful and inclusive education that promotes their overall development and integration into society.

The primary goal of educational programs for children with intellectual disabilities is to provide individualized and supportive learning environments that cater to their specific needs and abilities. These programs emphasize the development of functional academics, life skills, social skills, and vocational training to help children achieve greater independence and self-sufficiency. By focusing on each child's strengths and potential, these programs aim to enhance their quality of life and enable them to participate fully in their communities.

In this context, a well-structured educational program encompasses various

components, including individualized education plans (IEPs), differentiated instruction, multi-sensory learning approaches, and the use of assistive technologies. Collaboration with specialists such as speech therapists, occupational therapists, and behavioral therapists is essential to address the holistic needs of the children. Moreover, family and community involvement play a crucial role in reinforcing the learning and development of these children.

As we delve into the details of educational programs for children with intellectual disabilities, it is important to recognize the transformative impact these programs can have. With the right support and resources, children with intellectual disabilities can thrive academically, socially, and personally, paving the way for a more inclusive and equitable society.

6.2 OBJECTIVES

- Identify the various education and vocational programmes for mentally retardation
- Explain the role of National Institute for mentally retarded

6.3 EDUCATION OF MR CHILDREN AND PLACEMENT

In 1947, there were only one centre in India for the education of mentally retarded children but now the number of such institutions is 30 with an enrolment of more than 2500 persons. In 1960, the central government established a model school for mentally deficient children in New Delhi with an enrolment of 60. Two centres are working for training of teachers for mentally retarded children. Here we suggest the following types of educational programmes for mentally retarded children:

(1) Identification and Diagnosis:

There are different methods of identifying or locating mentally retarded children. They can be identified with the help of achieving tests, intelligence tests, medical check-ups and with the help of collecting information form parents, friends, teachers, psychologists, psychiatrists.

(2) Help in understanding the child:

Indirect knowledge should be given to the child to know himself so that he may not long for unachievable aims.

(3) Special time table:

Time table should be constructed while keeping in view the needs of the people. The duration of the period should be short. There should be provision for more rest intervals. Time table should be flexible.

(4) Special type of Curriculum:

There should be special type of curriculum for mentally retarded children. Emphasis should be given to manual work and practical activities for vocational training. Useful habits should be inculcated in them so that they may not become a great burden on the parents or other members of the society. However, those who are of very low I.Q. should be trained only in those activities which are essential for their survival like physical care of protection, eating and dressing.

(5) Special methods of teaching:

The teacher should make use of various psychological methods of teaching. The teaches should make use of illustrative and audio-visual aids. Concrete objects should be used for explaining the things. The teacher should make use of love, affection, sympathy, patience, repetition and use of simple language.

(6) Special teachers:

There should be specially trained teachers, psychologists and psychiatrists for handicapped children. They should have sympathetic and affectionate attitude. They should teach from the point of view of handicapped children and put their best to bring out the maximum of these children. They should help them to make maximum adjustment. They should not expect too much from them.

(7) Individual Attention:

Teacher should pay individual attention to such a child and take him into confidence. Individual attention is possible only if the size of class is small.

(8) Special school, clinics or mental hospitals:

MR Children (who possess below 55 I.Q.) must be taught in special schools or they should be kept in mental hospital or clinics.

(9) Educate the parents:

The teachers should educate the parents about the mental calibre of their children. The parents must be made conversant with the level of intelligence of such children. They must be stimulated to do for their child what is best for him. In addition to this, the kins of such children should also be educated about the handicaps of MR children.

(10) Creating Awareness among other members of society:

Besides parents and other relatives, the general members of the society particularly the neighbours, playmates and others immediately linked with the child should be educated and made aware about the handicaps of such children. They must try to understand their limitations and should treat them patiently.

Developing an educational program for children with intellectual disabilities (often referred to as developmental or cognitive disabilities) involves creating a structured, supportive, and individualized approach to learning. Here are key components and strategies for such a program:

1. Individualized Education Program (IEP)

Assessment: Conduct thorough assessments to understand each child's strengths, needs, and areas requiring support.

Goals: Set specific, measurable, achievable, relevant, and time-bound (SMART) goals.

Review: Regularly review and adjust the IEP based on the child's progress.

2. Curriculum Adaptation

Functional Academics: Focus on practical academic skills that are useful in daily life, such as basic literacy, numeracy, and communication skills.

Life Skills Training: Emphasize life skills like personal hygiene, cooking, money management, and social interaction.

Vocational Training: Provide vocational skills and job training for older children to prepare them for potential employment.

3. Teaching Strategies

Differentiated Instruction: Tailor teaching methods to accommodate different learning styles and levels of understanding.

Multi-Sensory Approaches: Use visual, auditory, and kinesthetic learning

materials to engage multiple senses.

Positive Reinforcement: Use positive reinforcement to encourage desired behaviors and learning outcomes.

4. Supportive Environment

Safe and Structured Setting: Create a safe, structured, and predictable learning environment.

Assistive Technology: Utilize assistive technology to support learning, such as communication devices and educational software.

Resource Rooms: Provide access to resource rooms where children can receive additional help in a more focused setting.

5. Collaboration with Specialists

Speech and Language Therapy: Work with speech therapists to improve communication skills.

Occupational Therapy: Collaborate with occupational therapists to develop fine motor skills and daily living activities.

Behavioral Therapy: Engage behavioral therapists to address behavioral challenges.

6. Family and Community Involvement

Parental Training and Support: Offer training sessions and support groups for parents to help them support their child's development.

Community Integration: Plan community-based activities and field trips to promote socialization and community involvement.

7. Evaluation and Feedback

Continuous Monitoring: Regularly monitor and document the child's progress.

Feedback Mechanism: Establish a system for regular feedback from teachers, parents, and the children themselves.

Example Program Outline

Week 1-2: Initial Assessment and IEP Development

- Conduct initial assessments

- Develop IEP with input from teachers, parents, and specialists

Week 3-4: Establishing Routine and Environment

- Set up a structured daily routine

- Introduce the learning environment and resources

Week 5-8: Focus on Functional Academics and Life Skills

- Basic literacy and numeracy activities

- Daily living skills sessions (e.g., personal hygiene, cooking)

Week 9-12: Integration of Therapies and Vocational Training

- Incorporate speech, occupational, and behavioural therapies

- Begin basic vocational training activities

Week 13-16: Community and Social Integration

- Organize community outings

- Social skills workshops

Ongoing: Review and Adjust IEP

- Regular reviews and updates to the IEP based on progress and feedback

By implementing these components and strategies, an educational program can effectively support the development and growth of children with intellectual disabilities, helping them achieve their fullest potential.

6.4 Role National Institute for the Empowerment of Persons with Intellectual Disabilities (Formerly National Institute for the Mentally Handicapped)

Established in the year 1984 at Manovikasnagar, Secunderabad (TS) is an Autonomous Body under the administrative control of Department of Empowerment of Persons with Disabilities (Divyangjan), Ministry of Social Justice & Empowerment, and Government of India. NIEPID (Formely NIMH) is dedicated to provide quality services to Persons with Intellectual Disabilities (Divyangjan) in the National interest.

NIEPID (Formerly NIMH) has three regional centres located at **Noida/ New Delhi, Kolkata, & Mumbai,** NIEPID (Formerly NIMH) Model Special

Education Centre located at Noida/New Delhi. The institute endeavours to excel in building capacities to empower Persons with Intellectual Disabilities (Divyangjan). Since the quality of life of every Persons with Intellectual Disabilities (Divyangjan) is equal to other citizens in the country, in that they live independently to the maximum extent possible and through constant professional endeavors, National Institute for the Empowerment of Persons with Intellectual Disabilities (Formerly National Institute for the Mentally Handicapped) empowers the Persons with Intellectual Disabilities (Divyangjan) to access the state of the art rehabilitation intervention viz., educational, therapeutic, vocational, employment, leisure and social activities, sports, cultural programmes and full participation. The role for which NIEPID (Formerly NIMH) works are listed as under:-

- Human Resources Development
- Research and Development
- Development of models of care and rehabilitation.
- Documentation and dissemination.
- Consultancy services to voluntary organizations
- Community Based Rehabilitation
- Extension and Outreach programmes

The organization aims to work in the direction of human resources development, perform research and development, development of models of care and rehabilitation, prepare documentation and dissemination, offer consultancy services to voluntary organizations, conduct community-based rehabilitation and organize extension and outreach programs.

National institutions for individuals with intellectual disabilities play a crucial role in supporting the development, well-being, and integration of these individuals into society. Their responsibilities and contributions can be summarized as follows:

1. Policy Development and Advocacy

Advocacy: - Promote the rights and inclusion of individuals with intellectual disabilities at national and international levels.

Policy Development: - Assist in the formulation and implementation of policies and laws that protect and support individuals with intellectual disabilities.

2. Research and Development

Research: - Conduct and support research on causes, treatment, and best practices in the education and care of individuals with intellectual disabilities.

Innovation: Develop innovative programs, teaching methods, and assistive technologies to improve the quality of life and education for these individuals.

3. Educational Programs and Training

Specialized Education Programs: Design and implement educational curricula tailored to the needs of individuals with intellectual disabilities.

Training for Educators and Caregivers: Provide training and professional development for teachers, caregivers, and other professionals working with this population.

4. Service Provision and Support

Direct Services: Offer direct services such as assessments, therapies (speech, occupational, physical), and vocational training.

Support Services: Provide support services including counselling, family support programs, and respite care.

5. Community Outreach and Integration

Community Programs: Develop community-based programs that facilitate the inclusion and participation of individuals with intellectual disabilities in various aspects of community life.

Public Awareness: Conduct public awareness campaigns to reduce stigma and increase understanding and acceptance of intellectual disabilities.

6. Collaboration and Partnership

Collaboration with Organizations: Work in partnership with other governmental and non-governmental organizations, educational institutions, and healthcare providers.

International Partnerships: Engage with international bodies and participate in global initiatives to share knowledge and best practices.

7. Monitoring and Evaluation

Quality Assurance: Monitor and evaluate programs and services to ensure they meet established standards and effectively address the needs of individuals with intellectual disabilities.

Data Collection: Collect and analyze data to inform policy, improve services, and guide future research and development.

Example: National Institute for Empowerment of Persons with Intellectual Disabilities (NIEPID), India

The NIEPID is an example of such an institution that undertakes several key activities:

Training and Education: Provides training programs for professionals and parents, and conducts diploma and degree courses in special education.

Research: Engages in research to develop new techniques and methods for educating and rehabilitating individuals with intellectual disabilities.

Services: Offers diagnostic, therapeutic, and vocational training services.

Advocacy and Policy Support: Works on advocacy and supports the development of policies aimed at the empowerment of individuals with intellectual disabilities.

National institutions like NIEPID play a pivotal role in creating a more inclusive society by addressing the diverse needs of individuals with intellectual disabilities and ensuring their rights and opportunities are upheld.

6.5 LET US SUM UP

Education is a fundamental right for all children, including those with intellectual disabilities. Intellectual disabilities, often characterized by significant limitations in cognitive functioning and adaptive behaviors, can present unique challenges in traditional educational settings.

Well-structured educational program encompasses various components, including individualized education plans (IEPs), differentiated instruction, multi-sensory learning approaches, and the use of assistive technologies. Collaboration with specialists such as speech therapists, occupational

therapists, and behavioral therapists is essential to address the holistic needs of the children,

National institutions like NIEPID play a pivotal role in creating a more inclusive society by addressing the diverse needs of individuals with intellectual disabilities and ensuring their rights and opportunities are upheld.

6.6 UNIT END EXCERCISE

1 Describe the educational Programme/ measures used for mentally retarded children

2. Discuss the role National institute for mentally retarded/NIEPID

6.7 SUGGESTED READINGS

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GIFTED AND CREATIVE CHILDREN

Unit –II **Lesson No.: 7**

Structure

7.1 Introduction .

Gifted children represent the superior group and fall on the right side of the 'Normal Probability Curve' (NPC) at its extreme end. Those on negative side in the left of the NPC are the 'Negatively' exceptional children and are categorized generally as the handicapped-Physically, intellectually, socially and emotionally.

The gifted and creative children are also sometimes designated as 'genius' or 'superior' and have specific characteristics and qualities. The concept of giftedness varies widely. But a common connotation is 'children' possessing a high intellectual level and special abilities and talents'. It is believed that gifted children possess an IQ of 130 and above.

There are various ways and means of categorizing the gifted children based on the specific characteristics which they possess. The procedure of identification is also varied, depending upon the specific characteristics.

In view of their specific needs and requirements, they require specific educational programmes and treatment at the hands of teachers, parents, and elders. Since the number of such children is usually very small, it is not advisable to have special and separate schools for them. Instead mainstream and integration is useful, of course, with some special arrangements, in developing countries like India. The role of regular teachers in mainstream classes cannot be undermined. But they need to be specifically trained and equipped to meet the challenge of teaching gifted children.

7.2 OBJECTIVES

After you have completed this lesson, you should be able to

- Define gifted and creative children;
- Identify gifted and creative children;
- Know the characteristics of gifted and creative children;
- Explain the educational programmes for gifted and creative children;

7.3 GIFTED CHILDREN

7.3.1 Meaning and definitions

The term 'gifted children' has been defined by different scholars and psychologists in the following words:

Telford and Sawrey (1977):

The intellectually gifted can be defined in terms of test scores or demonstrated performance, or as the upper 1 or 2 percent of the general population as measured by some designed intelligence and/or achievement tests.

Fleigher and Bisch (1959):

The term gifted encompasses those children who possess a superior intellectual potentiality ability to achieve academically in the top 15 to 20 percent of the school population; and/or talent of a high order in such special areas of mathematics, social leadership; and a unique creative ability to deal with their

environment.

Witty (1940):

The term gifted and talented stands for those performance is consistently remarkable in some potentiality valuable activity.

Prempasricha (1964):

The gifted child is the one who exhibits superiority in general intelligence or the one who is in possession of special abilities of a high order in the fields which are not necessarily associated with a high intelligence quotient.

Marland report (1972):

The gifted are those who possess outstanding abilities or potential in the area of general intellectual capacity, specific academic aptitude, creative or productive thinking, leadership ability, visual or performing arts and psycho-motor activity.

Havighurst:

The talented or gifted child is one who shows that various scholars and thinkers have adopted different approaches in defining the term giftedness. The first two definitions have tried to provide a statistical and operational definition by adopting scores on intelligence and achievement tests. Although the use of the I.Q. and achievement test score has the advantage of objectivity, it cannot be made a sole criterion for deciding giftedness. Moreover, there lies a difficulty in deciding the cut-off point, the minimum score for labelling one as gifted as some may fix it as 140 (Terman and Oden, 1947) while others may lower it to 110 (Bentley, 1937).

In the light of the above definitions, we may draw the following conclusions above the meaning, nature and characteristics of gifted children:

1. The gifted child is essentially an exceptional or a special child.
2. In comparison to children of his own group, he is superior in some ability or group of abilities.
3. In most cases, the gifted child invariably exhibits superior performance only in the area or areas of his giftedness.
4. The appellation 'gifted children' is applicable to not only the academically

talented but also to those who show promise in other spheres, viz:

a) Music, dance, drama; painting, sculpture writing and other creative arts,

b) Mechanical work.

c) Social leadership and human relationships,

d) Creative scientific experimentation and exploration,

e) Physical activities like games, sports and gymnastics.

5. A gifted child does not necessarily need to possess a very high intelligence quotient (I.Q.).

6. Gifted and talented children are those identified by professionally qualified persons. These children, by virtue of outstanding abilities, are believed to be capable of high performance. These are children who require differentiated educational programmes and services beyond those normally provided by regular programmes, in order to realize their contribution to the self and to the society.

7. If he receives proper attention and opportunity for self-expression and development, the gifted child can make a noteworthy contribution to the welfare of his family, the society, the nation and humanity at large.

7.3.2 Characteristics of Gifted Children:

There is no doubt that an intellectually gifted child shows his talent by his remarkably performance in any undertaking worth his while. Such children are generally identified in schools by their teachers who are able to do this by observing their performance.

A number of misconceptions are found among laymen regarding the characteristics of very superior and gifted children. From the caricature and"Folklore", people get the idea that they are physically small in stature and poorly developed. They also have a strong notion that the intellectually superior people are "qeer", "unstable"" one sided" and "socially rejected" persons. Most of them turn out to be average adults as far as intelligence and achievement are concerned.

However, none of the above notions are correct. For more than two

decades, groups of exceptional children were thoroughly screened. The following are their major characteristics as revealed through these researches:

1. Physical characteristics:

Different studies on gifted children reveal that they have above-average physical development. These children are taller, heavier and well developed. Their general health is above average, which continues to be so even in adulthood. Incidents of mortality and insanity are found to be low in case of gifted children. They have good coordination and control of their muscles. In a study, Baldwin conducted body measurements of 594 children of Terman's gifted group (in which I.Q. was in the range of 130-189). These children appear to be physically superior to the group they were compared with. In 1925, Terman obtained the following details about gifted children:

A) Gifted children have greater weight at birth.

B) They walk and talk earlier.

C) They have earlier pubescence.

D) They are Precocious.

E) They have to have better nutrition.

F) The gifted children have more height, weight, strength of grip, broad shoulders, superior motoring ability, less defective hearing, mouth breathing, less stuttering, etc.

2. Intellectual Characteristics:

Studies reveal that gifted children are found to have superior development in all respects. Their learning to walk, walk and even to read, is discernible quite early.

They are endowed with many qualities of personality and intellect. Case studies of intellectually gifted children have shown that they possess better standards than average children. Their reactions are quick and their progress is conspicuous. At an early age, they enter school, and at school, they are much ahead of their class. Their activities in the classroom are wide and varied. Their interest are also diverse.

As reported by Kirk, gifted children are more interested in abstract subject, such

as; Art, Literature, Philosophy, Logic, etc. and less interested in procedure subjects like penmanship and manual training. They are fond to be less sociable. Different research works reveal that on the social plane of play interest, the majority of gifted children fall in the lowest quartile as compared to average children. Kirk also has confirmed that the gifted children are rated above average on character and maturity tests. Most of the gifted children are fond to be aware of their talents their utilization. Their cognitive processes are very rich. They form creative ideas easily, are able to sense gaps in problems and bridge the missing elements intellectually.

3. Personality Characteristics:

Different research works confirmed that there is positive and intimate relationship between gifted and personality. No doubt, gifted children are more desired, better known, more ambitious and hardworking. Usually they have a strong desire to explore and create. They are able to sustain frustration better than anybody else.

Some psychologists have found that gifted children are impulsive and self-confident. They are very much interested in aesthetic expression and reflective thinking. They have a high degree of motivation. Normally, they are sensitive, resourceful, flexible and enthusiastic. Various studies of gifted children tell us that gifted or creative behaviour is seen as a continuation and substitute for the play of childhood. The creative thoughts are derived from the elaboration of the freely fantasies and ideas related to day-dreaming and childhood play. Gifted children accept freely rising ideas whereas non-creative persons suppress them.

5. Learning and Education:

These children learn to walk and talk earlier than the average ones. Their vocabulary is very good. They possess a wide development. They also have a retentive memory. They are superior in their achievements in school subjects. Unevenness is devotedly. Near about fifty percent of the gifted children have learned to read before entering school. After entering school, they develop a keen interest in more abstract school subjects. They rank well above their individual grades.

Needs and Problems of Gifted Children.

Like other children, the gifted children have certain basic needs, the need for security, for love, for belonging and the need to be accepted as an individual. In addition to these basic need the gifted children may have certain special needs like:

a. The need of knowledge and understanding,
b. Creativity and ingenuity,
c. The development of his exceptional abilities, and
d. The need for self – actualization or self – expression.

The gifted child thus strives for the satisfaction not only of the basic needs but also to have the opportunity and the facilities for the realization of the above-mentioned specific needs. In case he experiences difficulty in accomplishment of these needs he becomes disturbed, mentally as well as emotionally. This leads to a sort of maladjustment and he becomes a problem child.

The gifted child needs a proper environment for his development. He wants to be understood carefully in response to his different needs and problems. The parents as well as teachers, which do not understand his urges, usually snub him. Sometimes, he wants appreciation for his ingenuity in scientific field or creativity in the field of arts, but does not get it. Consequently, he feels insecure and rejected and any sort of mishandling or carelessness on the part of teachers or parents further aggravates the situation and he becomes a nuisance.

In the case the gifted child gets undue attention and appreciation, he becomes too conscious of his superiority and develops a boastful and supercilious attitude. He cannot adjust with his fellow students. He considers them inferior and foolish and may even dislike them, while they, in turn becomes jealous of him. They did not accept his superiority and begin to reject him. The gifted child, I this way, does not get recognition from his peers and faces a sort of social rejection. This perturbs him and, as a result, he either becomes withdrawn or aggressive and hostile.

From another angle too, the gifted children are faced with the problems of adjustment in our usual system of class –room instruction. We, in the class

–rooms, plan work for an average child and the same tasks are assigned to all the children in the class. For the gift child this is no challenge and he either finishes the assignment much ahead of the others or takes no genuine interest in it. As a result, he becomes restless, careless, inattentive and idle, and often utilizes the extra time and surplus energy in making mischiefs indulging in acts of indiscipline in the class –room and out of it.

In this way, due to lack of adequate facilities and suitable environment, and ignorance about their specific needs and problems, the gifted children are exposed to the risk of being turned into maladjusted or abnormal personalities. Under these circumstances, their superior talents go waste. There is , therefore, a clear need for special care and proper education to be giving to the gifted and creative children.

7.3.3 Identification of Gifted Children:

The first step in the direction of planning special education for gifted children is to identify or separate them from average children. In the absence of identification and adequate provision, may of the gifted children, like the flowers in the desert or diamonds in the earth, go unnoticed.

For the proper identification of the gifted children, we must make a distinction between the intellectually gifted and children with special talents who show superior performance in one area or the other.

In the identification of intellectually gifted or academically talented children, intelligence tests are more often used as screening instrument. Psychologists have different opinion regarding demarcation between the average and the gifted children on the basis of I.Q. Some consider children with I.Q. of 125 and above as gifted while others raise this limit to 135 or 140. The criterion is quite arbitrary and not universal. However, an I.Q. of 130 or above as measured by an individual intelligence test) is usually accepted as the most agreed criterion for singling out the gifted children from the average population.

The following list of identifying characteristics prepared by De Hann and Kough (Dutt, 1974,) can be of great help in the identification of intellectually gifted or academically talented students:

1. Learns rapidly and easily.

2. Uses a great deal of common sense and practical knowledge.
3. Reasons things out. Thinkers clearly, recognises relationships, comprehends meanings.
4. Retains what he has heard or read without much rote drill.
5. Knows many things of which most students are unaware.
6. Has a large vocabulary, which he uses easily and accurately.
7. Can reads books that are one or two years in advance of the rest of the class.
8. Performs difficult mental tasks.
9. Asks many questions, has a wide range of interests.
10. Does some academic work one or two years in advance of the rest of the class.
11. Is original in this thinking, uses good but unusual methods.
12. Is alert, keenly observant and respond quickly.

7.4 CREATIVE CHILDREN

7.4.1 Creativity.

Every one of us is a unique creation, but everyone does not possess the same creative ability. Some of us are endowed with high creative talents and contribute to advancement in the fields of art, literature, science, business, teaching and other spheres of human activity. Such people are responsible for propounding new ideas and bringing about the social and cultural changes. Mahatma Gandhi, Abraham Lincoln, HomiBhabha, Newton & Shakespeare were some of the creative individuals who left their mark in their chosen fields of work. They were undoubtedly gifted with creative abilities.

Creativity, as we use the term, means seeing or expressing new relationships among things or ideas. Every child is creative to some extent in this sense of the term. The amount of creativity and its dimensions vary from individual to individual. Creative children are assets to the society.

Development and progress in various fields of national life depends on creative children. We must try to develop creativity in all children so that they may excel in the fields of interest and may lead the nation a head. Our schools should aim at the development of creativity in school children to prepare leaders

in different walks of national life. The school should screen creative children and should provide them all possible facilities for the development of their talents.

Good education, proper care and provision of opportunities for creative expression inspire, stimulate and sharpen the creative mind. It is in this sphere that parents, teachers and other members of the society make a significant contribution. They are required to help children in nourishing and utilizing their creative abilities to the utmost. The educational process, therefore, should be aimed at developing creative abilities among children. This can be achieved by acquainting the parents and teaches with the real meaning of creative process and the ways and means of developing and nurturing creativity. Creativity as the unique characteristics of the human mind may be defined as the capacity or ability of an individual to create, discover, or produce a new or novel idea or object, including the rearrangement or reshaping of what is already known to him,, which proves to be a unique personal experience.

Some important definition & also explain who are creative children of Creativity.

A creative action is a novel, venturesome and expletory on the part of an individual. Uncreative thought is rigid, stereo-type and mechanically operated. Psychologists have defined creativity in different ways. Some of the definitions are given below:

Guilford says, "Creative thought means divergent thinking and uncreative means convergent thinking". There is no specific tool to measure divergent thinking, while convergent thinking is measured by means of intelligence tests which include items like remembering, recognition an manipulation of some concrete material.

Torrence, who has attempted to identify creativity in children, has done a lot of practical work on creativity. He defines creativity as "a process of becoming sensitive to problems, deficiencies gap of knowledge, missing elements, disharmonies and so on: identifying the difficulties, searching for solutions, making guesses or formulating hypotheses about the deficiencies, testing and retesting hypotheses and possibly modifying retesting them and finally

communicating results.

Another attempt to define creativity has been made by **Zbigniew Pietrasinski,** a Russian psychologist, who emphasises the social value of creative work. According to him, "Creativity is an activity resulting in new products of a definite social value".

7.4.1 Characteristics of Creative Children.

The characteristics of creative children can be summarized as follows:

1. Courageous in Convictions: The creative shows strong convection in his beliefs and values. He can beyond socially conformist behaviour.
2. Curious: The creative child is curious to know more and more about everything, particularly his environment.
3. Independent in judgement: The creative child can take independent judgement in crucial matters.
4. Independent in thinking: He is independent in thinking about the problems of various types.
5. Intuitive: He develops intuition in his problems and can thus solve them immediately and easily.
6. Willing to take risk: A creative child has risk taking capacity. He does not care for the consequences.
7. Unwilling to accept say so: He does not easily accept routine solutions to problems. He is not a conformist in that matter.
8. Becomes preoccupied with tasks: When he starts a task, he completely absorbs himself in that task. He fully concentrates in mental energies on the task in hand.
9. Visionary: A creative child has vision of future. He can anticipate the problems which can emerge in future.

7.4.2 Identification of Creative children

Creativity is also investigated through its outcome, i.e. the creative products. The degree of one's creativity may thus be judged on the basis of its originality, novelty and relevance. Creativity may also be described and understood through the personal characteristics of the creative as distinct from those of the

non-creatives. Who is creative and what should be expected from a creative mind can, therefore, be properly determined by referring to the lists of characteristics framed by researches and psychologists.

For objective identification of creativity, however, it is better to employ the standardized verbal as well as non-verbal assessment of intelligence. These tests usually incorporate such items for testing the various components of creativity, such as: fluency, flexibility, originality, unusual responses, resistance to premature closure and elaboration, etc. The Torrance tests of creative thinking, Minnesota test of creative thinking, and Baqer Mehdi's test of creative thinking are examples of such tests.

There is a need for properly planned, deliberate and conscious effort on the part of teaches, members of the society, governments, parents as well as the children themselves for the appropriate nurturing and stimulation for the creative urge and potential. It should, therefore, be ensured that children are provided with the environment and facilities conducive to the nurturing and stimulation of all that which is helpful in the development of creative faculties and qualities like originality, flexibility, ideational fluency, divergent thinking, self-confidence, persistence, sensitiveness, the ability to see relationships and make association.

7.5 EDUCATIONAL PROGRAMMES FOR GIFTED AND CREATIVE CHILDREN

At the present juncture students all over the world appear to be in revolt. They are feeling that life is without any ideal or objectives to strive for. It is also an alarming fact that the leaders of these angry youths are found to be the most brilliant and the gifted. This makes one wonder what is wrong with the present system of education. Why is the stream of valuable human energy and the talents of such gifted individuals flowing in a negative direction?

Surely, there is an urgent need for a well thought out programme or scheme of special education for the gifted children. The following plans have been put forward by different thinkers for this purpose:

1. Separate schools.
2. Ability grouping or separate classes.

3. Acceleration of double promotion system.
4. Enrichment programmes.

1. Separate schools:

It is often suggested that there should be separate schools for gifted children and adequate facilities should be provided in these schools to help them in developing their specific abilities and potentialities. Such segregation is often criticized and labelled as undemocratic, but it is advantageous also. The products of public schools (where there is a provision for selective special education) also justify our fears and doubts.

The students educated in these schools develop a superior and conceited attitude and widen the gulf between the educated and the uneducated or the privileged and the unprivileged.

2. Ability grouping or separate classes:

Similarly, segregation of gifted children into a separate section within the same school also involves the same danger. This plan is known as "ability grouping". Here, a given grade is divided into different sections on the basis of ability, and the children with superior intelligence, or those bestowed with giftedness, are put in "A" section which is sometimes designated as "Golden Section". The non-feasibility of both these plans involving segregation is obvious in the Indian context. We can not afford such segregation, as it involves huge expenditure, nor can it yield very fruitful results. The gifted child is gifted or talented in his area of giftedness only. He may or may not possess superior general intelligence. Children who possess talents in a particular area may be as few as 1% or even less of the total population of their class. It is, therefore, unwise to think of having a separate section consisting of these few children. Further-more, segregation on the basis of I.Q. is no guarantee to the maintenance of homogeneity in the grouping.

3. Acceleration or double Promotion:

Another concept in the education of gifted children is "acceleration", usually known as double promotion. According to this plan, the gifted child is allowed accelerated progress. He is either promoted to the next higher grade in mid-session without completed the prescribed full term, or is permitted to skip a

great or class at the end of the term. The plan, though quite feasible, suffers from a serious defect; in that it creates a gulf between educational ability and experience. The children who get early promotion to the advanced grade usually find it hard to adjust among children who are senior to them in age. Though intellectually at par with them, they lag behind in emotional, social and physical spheres and thus fall victim to adjustment problems.

4. Enrichment programmes

Another proposal for the education of gifted children is what is technically known as "enrichment". Basically, it involves the selection and organization of learning experiences and activities appropriate to the child's adequate development. In this way the enrichment of education should be considered to be a need of all students. But in the case of gifted children it will definitely meet an urgent need of giving them a greater variety of experiences or tasks at a more advanced level. Thus, enrichment programmes aim at providing additional educational opportunities to gifted children. They may include:

a) Special assignment (within or outside the syllabus),

b) Work on independent project,

c) Preparation of reports on different programmes,

d) Participation in panel discussions,

e) Independent library reading,

f) Visits to different sites to obtain first-hand information,

g) Construction of models, aid material and improvised apparatus etc,

h) Participation in the organization of various co-curricular activities, and

I) Experimentation and independent research.

The learning experiences should thus be so enriched that gifted children can come across new and challenging things. In this situation, they can get adequate opportunities for proper development. Enrichment of the learning experiences or programmes provided in the school is the most suitable plan for the education for gifted children in our country. It not only provides facilities for the total development of the special abilities and potentialities of the child

but also takes care of the development of the special abilities and potentialities of the child but also takes care of the development of his overall personality. It tries to satisfy the basic needs of the gifted children and helps towards their proper adjustment. Moreover, it helps in evolving a school programme that is beneficial to both the average as well as the gifted children. Each without interfering in the development of the other. In this way, "enrichment" provides all the essential facilities for a gifted child in any scheme of education, adequate provisions should be made in the school curriculum for enrichment of the learning experiences according to the needs and requirements of the gifted children.

7.6 LET US SUM UP

In this unit you have studies about gifted children and creative children, their characteristics and ways of identification of gifted children and creative children. In the end we discuss about educational programmes for gifted and creative children.

7.7 UNIT END EXERCISE

1. Who is gifted child? What are his characteristics?
2. How would you identify gifted children? Describe the procedures.
3. What are the educational provisions for the gifted and the creative children?
4. Who is a creative child? What are the important characteristics of a creative children?

7.8 SUGGESTED READINGS

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CONCEPT OF VISUALLY IMPAIRED: CHARACTERISTICS, TYPES, DEGREE OF IMPAIRMENT, ETIOLOGY, PREVENTION, EDUCATIONAL PROGRAMS AND ROLE OF NATIONAL INSTITUTES FOR VISUALLY IMPAIRED

Unit III **Lesson No.: 8**

Structure

8.1 OBJECTIVES

After going through this unit you shall be able to:

(i) Students will be able to understand the concept of visual impairments.

(ii) Students will be able to identify characteristics of visual impairments.

(iii) Students will be able to classify types and degrees of visual impairments.

(iv) Students will be able to analyse the etiology and prevention of visual impairments.

(v) Students will be able to explore educational programs for visually impaired individuals.

(vi) Students will be able to evaluate the role of national institutes and placement strategies.

8.2 INTRODUCTION

Special education is a crucial facet of the educational landscape, dedicated to ensuring that all individuals, regardless of their unique needs or challenges, receive equitable opportunities to learn and thrive. Inclusive by design, special education encompasses a wide spectrum of interventions, accommodations, and support systems tailored to meet the diverse needs of learners with disabilities, developmental delays, or exceptionalities. Rooted in the principle of equity, special education seeks to foster an environment where every student can access high-quality education, achieve academic success, and develop the skills necessary to lead fulfilling lives. Through collaboration among educators, families, and community stakeholders, special education endeavors to dismantle barriers to learning, champion inclusion, and empower individuals with the tools they need to reach their full potential.

8.3 CONCEPT OF VISUALLY IMPAIRED

Visual impairment is a multifaceted condition that significantly impacts individuals' lives, influencing their ability to navigate the world around them. From basic tasks like reading and writing to complex activities such as driving and social interactions, vision plays a crucial role. In this paper, we aim to explore the concept of visual impairment comprehensively, covering definitions, causes, classifications, impact on daily life, and available support systems.

Defining Visual Impairment

As evidenced by the diverse definitions provided by reputable organizations and institutions, visual impairment encompasses a broad spectrum of conditions ranging from mild to severe. While there is consensus on its core definition – a significant reduction in vision that cannot be fully corrected by conventional means – nuances exist in terminology and scope. Terms like "low vision," "partial sight," and "blindness" are often used interchangeably, adding layers of complexity to the understanding of visual impairment. Here are some

definitions below:

1. **World Health Organization (WHO):** Visual impairment refers to a significant reduction in vision that cannot be fully corrected with glasses, contact lenses, medication, or surgery.
2. **American Foundation for the Blind (AFB):** Visual impairment encompasses a range of visual conditions from low vision to total blindness, affecting individuals' ability to see and interact with their environment.
3. **National Eye Institute (NEI):** Visual impairment indicates a limitation in the ability to see, whether due to eye disorders or systemic conditions affecting vision, impacting daily activities and quality of life.
4. **American Optometric Association (AOA)**: Visual impairment denotes an impairment in vision that cannot be corrected to normal levels, leading to difficulties in performing tasks such as reading, driving, and recognizing faces.
5. **Royal National Institute of Blind People (RNIB):** Visual impairment is a term used to describe a range of conditions causing sight loss, including partial sight and blindness, which can result from various eye diseases, injuries, or congenital factors.
6. **Centers for Disease Control and Prevention (CDC):** Visual impairment refers to a decreased ability to see to a degree that causes problems not fixable by standard eyeglasses, contact lenses, medication, or surgery.
7. **National Federation of the Blind (NFB):** Visual impairment is a condition that interferes with an individual's ability to perform everyday tasks and activities due to a lack of clear vision, which may result from various eye conditions or diseases.
8. **Royal College of Ophthalmologists (RCOphth):** Visual impairment encompasses a spectrum of visual conditions, including low vision and blindness, affecting individuals' visual acuity and field of vision, often requiring specialized support and accommodations.
9. **American Academy of Ophthalmology (AAO):** Visual impairment refers to a range of visual conditions, from mild to severe, that impact an

individual's ability to see clearly and perform daily activities, with causes including refractive errors, eye diseases, and neurological disorders.

10. **National Institutes of Health (NIH):** Visual impairment indicates a reduced ability to see that cannot be fully corrected, resulting in difficulties in tasks requiring vision, such as reading, driving, and recognizing faces, and may stem from congenital conditions, injuries, or age-related changes in the eye.

8.3.1 Characteristics of Visual Impairment

Visual impairment encompasses a diverse array of characteristics, each contributing to the complexity and variability of the condition. Understanding these characteristics is essential for recognizing the unique needs and challenges faced by individuals with visual impairments. Some common characteristics include:

1.Variability in Visual Acuity: Visual acuity, or sharpness of vision, can vary significantly among individuals with visual impairments. While some individuals may have residual vision that allows them to perceive large objects or distinguish between light and dark, others may experience severe deficits in visual acuity, limiting their ability to perceive details or discern objects at a distance.

2. Contrast Sensitivity Deficits: Visual impairments often impact individuals' ability to perceive contrasts between light and dark, resulting in reduced contrast sensitivity. This can make it challenging to distinguish objects from their background or discern fine details in low-contrast environments.

3. Color Vision Abnormalities: Some individuals with visual impairments may experience abnormalities in color vision, such as color blindness or color deficiency. This can manifest as difficulty distinguishing between certain colors or perceiving subtle color variations, which may affect tasks such as reading color-coded information or interpreting visual cues.

4. Peripheral Vision Loss: Visual impairments may also result in a loss of peripheral vision, limiting individuals' ability to see objects located to the side or periphery of their visual field. This can impact spatial awareness, navigation, and mobility, particularly in crowded or dynamic environments.

5. Central Vision Impairment: Conditions such as macular degeneration or diabetic retinopathy can cause central vision impairment, affecting individuals' ability to see objects directly in front of them or focus on details. This can make tasks such as reading, driving, or recognizing faces challenging and may require the use of magnification devices or other visual aids.

6. Functional Vision Loss: In some cases, individuals may present with functional vision loss, where there is a discrepancy between observed visual deficits and functional abilities. This may be due to psychological factors, malingering, or secondary gain motivations, and may require comprehensive psychological assessment and intervention.

7. Adaptation and Compensation Strategies: Individuals with visual impairments often develop adaptive strategies to compensate for their deficits and maximize their remaining vision. This may include using tactile cues, auditory information, or memory aids to navigate their environment, perform tasks, and communicate effectively.

8. Psychosocial Impact: Visual impairment can have a significant psychosocial impact on individuals, affecting their self-esteem, confidence, and emotional well-being. Feelings of isolation, frustration, and dependency are common among individuals with visual impairments, particularly when they encounter barriers to participation and inclusion in social, educational, or vocational settings.

9. Progressive Nature of Some Conditions: Many visual impairments are progressive in nature, meaning that they worsen over time and may result in further deterioration of vision. Conditions such as retinitis pigmentosa or age-related macular degeneration can lead to gradual vision loss, requiring ongoing monitoring, management, and adjustment of support strategies.

10. Impact on Daily Activities: Visual impairments can impact various aspects of individuals' daily lives, including education, employment, mobility, and leisure activities. Tasks such as reading, writing, cooking, or navigating public spaces may require specialized accommodations, assistive technologies, or alternative techniques to be accessible and achievable.

Understanding the diverse characteristics of visual impairment is essential for providing tailored support and accommodations that address individuals'

specific needs and empower them to lead fulfilling and independent lives. By recognizing the unique challenges and strengths of individuals with visual impairments, we can work towards creating inclusive environments and opportunities for all

8.3.2 Types of Visual Impairment

Visual impairment encompasses a diverse range of conditions, each characterized by unique etiologies, clinical presentations, and functional implications. From mild visual impairments to profound blindness, individuals may experience varying degrees of vision loss and adaptability to their visual condition. Let's explore some common types of visual impairment:

1. **Low Vision:** Low vision refers to a significant reduction in vision that cannot be fully corrected with standard eyeglasses, contact lenses, medication, or surgery. Individuals with low vision may have functional residual vision that enables them to perform certain tasks with visual aids or accommodations. Examples of low vision conditions include macular degeneration, glaucoma, diabetic retinopathy, and retinitis pigmentosa.
2. **Blindness:** Blindness denotes a severe limitation in vision, typically defined as a visual acuity of 20/200 or worse in the better eye with the best possible correction or a visual field of 20 degrees or less. Individuals with blindness may rely on non-visual cues, tactile information, or assistive technologies to navigate their environment and perform tasks. Causes of blindness include congenital conditions, such as congenital cataracts or optic nerve hypoplasia, as well as acquired conditions, such as retinal detachment or traumatic eye injuries.
3. **Color Vision Deficiency:** Color vision deficiency, commonly known as color blindness, refers to a reduced ability to perceive certain colors or distinguish between specific hues. The most common type of color vision deficiency is red-green color blindness, followed by blue-yellow color blindness. Color vision deficiency may be congenital or acquired and can impact individuals' ability to perform tasks requiring accurate color discrimination, such as reading color-coded information or interpreting traffic signals.

4. **Cortical Visual Impairment (CVI):** Cortical visual impairment, also known as cerebral visual impairment, results from damage or dysfunction in the visual processing centers of the brain, rather than abnormalities in the eyes themselves. Individuals with CVI may exhibit a range of visual impairments, including reduced visual acuity, impaired visual attention, and difficulty with visual recognition. CVI often co-occurs with neurological conditions such as cerebral palsy, epilepsy, or developmental delays.
5. **Functional Vision Loss:** Functional vision loss refers to a discrepancy between the observed level of visual impairment and the individual's functional abilities and adaptive strategies. Unlike organic visual impairments with identifiable structural or physiological abnormalities, functional vision loss may result from psychological factors, malingering, or secondary gain motivations. Individuals with functional vision loss may exhibit inconsistent or disproportionate responses to visual stimuli and may benefit from comprehensive psychological assessment and intervention.
6. **Degenerative Retinal Conditions:** Degenerative retinal conditions encompass a group of progressive disorders that affect the function and integrity of the retina, leading to gradual vision loss and impairment. Examples of degenerative retinal conditions include retinitis pigmentosa, Stargardt disease, cone-rod dystrophy, and Leber congenital amaurosis. These conditions typically manifest with symptoms such as night blindness, peripheral vision loss, and eventual central vision deterioration, impacting individuals' mobility, independence, and quality of life.
7. **Congenital Cataracts:** Congenital cataracts are clouding of the eye's natural lens that occurs at birth or during early childhood. Congenital cataracts may be unilateral or bilateral and can vary in severity from partial to complete opacity of the lens. Depending on the location and extent of the cataract, individuals may experience varying degrees of vision impairment and functional limitations. Surgical removal of the cataract and implantation of an intraocular lens are typically performed to restore visual function and prevent amblyopia (lazy eye) in affected

infants and children.

8. **Retinopathy of Prematurity (ROP):** Retinopathy of prematurity is a developmental eye disorder that occurs in premature infants, particularly those born before 31 weeks of gestation or weighing less than 1,500 grams (3.3 pounds) at birth. ROP results from abnormal blood vessel growth in the retina, leading to scarring, retinal detachment, and vision loss if left untreated. The severity of ROP can vary from mild to severe, with more advanced stages requiring laser therapy or surgical intervention to preserve vision and prevent complications.
9. **Albinism**: Albinism is a genetic condition characterized by a lack of melanin pigment in the skin, hair, and eyes. Ocular manifestations of albinism include reduced pigmentation of the iris, foveal hypoplasia (underdevelopment of the central retina), and abnormal routing of the optic nerve fibers. Individuals with albinism typically have reduced visual acuity, photophobia (sensitivity to light), nystagmus (involuntary eye movements), and impaired depth perception. Visual aids such as tinted lenses, magnification devices, and adaptive technology can help individuals with albinism manage their visual impairments and improve their functional vision.
10. **Optic Nerve Disorders**: Optic nerve disorders, such as optic neuritis, optic atrophy, or optic nerve hypoplasia, can result in vision loss and impairment due to damage or dysfunction of the optic nerve. Optic neuritis, often associated with multiple sclerosis, causes inflammation of the optic nerve, leading to pain, vision loss, and color desaturation. Optic atrophy is characterized by degeneration of the optic nerve fibers, resulting in irreversible vision loss and visual field defects. Optic nerve hypoplasia is a congenital condition in which the optic nerve is underdeveloped, leading to reduced visual acuity and visual field defects in affected individuals.

Understanding the diverse types of visual impairment is essential for providing comprehensive support and accommodations that address the unique needs of individuals with visual impairments. By recognizing the specific characteristics, causes, and functional implications associated with each type of visual impairment, educators, healthcare professionals, and caregivers can

tailor interventions and services to optimize individuals' independence, quality of life, and participation in society. Moreover, fostering awareness, advocacy, and accessibility initiatives is crucial for promoting inclusivity and ensuring equitable opportunities for individuals with visual impairments in all aspects of life. Through continued research, education, and collaboration, we can work towards a future where visual impairment ceases to be a barrier and all individuals have the resources and support they need to thrive.

8.3.3 Understanding Degrees of Visual Impairment

Visual impairment encompasses a spectrum of severity, ranging from mild to profound, each degree influencing an individual's ability to perceive and interact with their environment. This chapter explores the degrees of visual impairment, considering factors such as visual acuity, functional limitations, and impact on daily life. Through examples and illustrations, we aim to provide college students with a comprehensive understanding of the diverse degrees of visual impairment.

The degree of visual impairment refers to the severity of vision loss experienced by an individual and its impact on their functional abilities and quality of life. While some individuals may have mild visual impairments that can be compensated for with visual aids or accommodations, others may experience profound blindness, necessitating alternative sensory strategies for navigation and communication. Understanding the degrees of visual impairment is essential for assessing individuals' support needs, designing interventions, and promoting inclusive practices in education, employment, and community settings.

Degrees of Visual Impairment

1. Normal Vision

Normal vision, also referred to as 20/20 vision, indicates optimal visual acuity, with individuals able to see objects clearly at a distance of 20 feet. Normal vision allows for accurate color perception, depth perception, and peripheral vision, enabling individuals to perform visual tasks with ease and efficiency. While variations in visual acuity and refractive errors are common, individuals with normal vision typically do not require visual aids or accommodations to engage in daily activities.

Example: Sarah has normal vision, allowing her to read small print, recognize faces, and navigate her surroundings without difficulty. She enjoys activities such as driving, reading, and watching movies, all of which rely on her clear and accurate vision.

2. Mild Visual Impairment (Low Vision)

Mild visual impairment, also known as low vision, refers to a moderate reduction in visual acuity or visual field, which cannot be fully corrected with standard eyeglasses, contact lenses, or refractive surgery. Individuals with mild visual impairment may experience difficulty reading small print, recognizing faces, or navigating unfamiliar environments without visual aids or accommodations. Despite their visual limitations, they can typically perform most activities of daily living independently with the assistance of magnification devices, adaptive technology, or environmental modifications.

Example: James has mild visual impairment due to macular degeneration, making it challenging for him to read small text or distinguish fine details. However, with the use of a handheld magnifier and increased lighting, he can read books, write letters, and manage his finances effectively.

3. Moderate Visual Impairment

Moderate visual impairment denotes a more significant reduction in visual acuity or visual field, resulting in greater difficulty performing visual tasks and activities of daily living independently. Individuals with moderate visual impairment may require additional support and accommodations to compensate for their visual deficits, such as larger print materials, tactile markers, or assistive technology devices. While they may still retain some functional vision, their ability to engage in complex visual tasks or navigate unfamiliar environments independently may be limited.

Example: Emily has moderate visual impairment due to glaucoma, which has resulted in peripheral vision loss and reduced contrast sensitivity. She relies on a white cane and auditory cues to navigate her neighborhood and uses a CCTV magnifier to read newspapers and correspondence at home.

4. Severe Visual Impairment

Severe visual impairment indicates a significant loss of visual acuity or visual field, resulting in considerable difficulty performing visual tasks and activities

of daily living independently. Individuals with severe visual impairment may experience profound limitations in reading, writing, orientation, and mobility, requiring extensive support and accommodations to maintain their independence and quality of life. While they may still have some residual vision, it is typically insufficient for performing tasks that rely heavily on visual input without significant adaptations.

Example: David has severe visual impairment due to diabetic retinopathy, resulting in central vision loss and visual field defects. Despite his limited vision, he uses a guide dog and braille labels to navigate his home and relies on audio books and voice-activated technology to access information and communicate with others.

5. Profound Visual Impairment (Legal Blindness)

Profound visual impairment, also known as legal blindness, denotes a severe limitation in visual acuity or visual field, which significantly impacts individuals' ability to perform visual tasks and activities of daily living independently. Individuals with profound visual impairment may have minimal or no useful vision, relying primarily on non-visual cues, tactile information, or auditory feedback for navigation, communication, and environmental awareness. While they may still have light perception or vague visual impressions, their functional vision is severely compromised, necessitating comprehensive support and accommodations to meet their needs.

Example: Sophie has profound visual impairment due to retinitis pigmentosa, leaving her with only minimal light perception and no discernible visual acuity. She uses a long white cane and braille signage to navigate her community and relies on screen-reading software and voice-activated devices to access information and communicate with others.

6. Near Total Visual Impairment

Near total visual impairment refers to a condition where individuals have extremely limited residual vision, often restricted to perceiving light and shadow or large-scale shapes and movements. While some individuals may have minimal light perception, their functional vision is severely compromised, requiring extensive support and accommodations for daily living activities.

Example: John has near-total visual impairment due to optic nerve atrophy,

leaving him with minimal light perception and no discernible visual acuity. He relies on tactile cues, auditory information, and memory aids to navigate his environment and perform tasks independently.

7. Functional Blindness

Functional blindness describes a condition where individuals have little to no functional vision, relying entirely on non-visual cues, tactile information, or auditory feedback for orientation, mobility, and communication. While some individuals may have residual light perception, it is insufficient for performing tasks that require visual input, necessitating alternative sensory strategies for daily living.

Example: Maria has functional blindness due to congenital glaucoma, leaving her with no discernible visual acuity or light perception. She uses a white cane and auditory cues to navigate her environment and relies on braille and assistive technology for communication and access to information.

8. Total Blindness

Total blindness, also known as profound blindness, refers to a complete absence of visual perception, including both light and form. Individuals with total blindness rely solely on non-visual sensory modalities, such as touch, hearing, and smell, for gathering information, communicating, and navigating their environment.

Example: Michael has total blindness due to bilateral optic nerve damage, resulting in a complete absence of visual perception. He uses a guide dog and echolocation techniques to navigate his surroundings and relies on braille and assistive technology for accessing information and communicating with others.

9. Deafblindness

Deafblindness refers to a combined loss of vision and hearing, which significantly impacts individuals' ability to communicate, access information, and interact with their environment. Individuals with deafblindness rely on tactile communication, sign language, and assistive technology to navigate their surroundings and engage in social interactions.

Example: Emma has deafblindness due to Usher syndrome, a genetic condition that causes progressive vision and hearing loss. She uses tactile sign language and a braille display for communication and relies on tactile maps and assistive

devices for orientation and mobility.

10. Multiple Disabilities with Visual Impairment

Some individuals may experience visual impairment in conjunction with other disabilities, such as intellectual disabilities, physical disabilities, or developmental disabilities. Multiple disabilities can compound the challenges faced by individuals with visual impairments, requiring comprehensive support and accommodations to address their complex needs and promote their inclusion and participation in various aspects of life.

Example: Tom has multiple disabilities, including visual impairment and cerebral palsy, which affects his motor control and coordination. He requires customized assistive technology and adaptive equipment to access educational materials, communicate with others, and navigate his environment effectively.

Understanding the diverse degrees of visual impairment is essential for recognizing the unique challenges and support needs experienced by individuals with visual impairments. By acknowledging the continuum of vision loss and its impact on functional abilities and quality of life, we can develop inclusive practices, accommodations, and interventions that empower individuals to lead fulfilling and independent lives. Through awareness, advocacy, and collaboration, we can create a more accessible and equitable society where individuals with visual impairments can thrive and contribute to their communities.

Visual impairments can arise from a multitude of factors, including genetic predispositions, environmental influences, and lifestyle choices. Understanding the underlying etiology of visual impairments is crucial for developing effective prevention strategies and interventions to mitigate their impact. In this comprehensive examination, we delve into the diverse causes of visual impairments and explore preventive measures aimed at promoting ocular health and preserving vision.

8.3.4 Etiology of Visual Impairments

Visual impairments can result from a wide range of etiological factors, including congenital conditions, acquired diseases, injuries, and systemic disorders. Let's explore some common causes of visual impairments:

1. Congenital Conditions: Genetic mutations, developmental anomalies, and

prenatal exposures can result in congenital visual impairments. These conditions may include congenital cataracts, where opacity in the lens affects vision from birth. Retinopathy of prematurity (ROP) is another example, occurring in premature infants due to abnormal blood vessel growth in the retina. Genetic disorders such as retinitis pigmentosa or albinism can also manifest as visual impairments from birth, impacting various aspects of visual function due to genetic abnormalities affecting retinal cells or pigment production.

2. Acquired Diseases : Conditions such as age-related macular degeneration (AMD), glaucoma, diabetic retinopathy, cataracts, and retinal detachment can develop later in life due to various factors. AMD, for instance, is influenced by aging, genetics, and lifestyle choices such as smoking and diet. Glaucoma, characterized by increased intraocular pressure, can develop gradually over time, leading to optic nerve damage and vision loss if untreated. Diabetic retinopathy, a complication of diabetes, can cause progressive damage to the retinal blood vessels, leading to vision impairment or blindness if blood sugar levels are poorly controlled.

3. Injuries and Trauma: Traumatic injuries to the eyes or head can cause irreversible damage to ocular structures, leading to vision loss or impairment if not promptly treated. These injuries may result from accidents such as falls, motor vehicle collisions, or workplace incidents involving hazardous machinery or projectiles. Blunt trauma, penetrating injuries, chemical burns, and sports-related accidents can all contribute to ocular trauma, necessitating immediate medical attention to prevent permanent vision loss.

4. Systemic Diseases: Systemic conditions like diabetes, hypertension, autoimmune disorders, and infectious diseases can have ocular manifestations that contribute to visual impairments. Diabetic retinopathy, for example, occurs due to damage to the blood vessels in the retina caused by high blood sugar levels in individuals with diabetes. Hypertensive retinopathy results from long-term hypertension, leading to changes in the blood vessels of the retina. Uveitis, an inflammatory condition, can affect various structures of the eye and cause vision loss if not treated promptly.

5. Genetic Predispositions: Hereditary factors play a significant role in certain visual impairments. Conditions like retinitis pigmentosa, Leber congenital

amaurosis, Stargardt disease, and congenital glaucoma have genetic components that increase the risk of inheriting these conditions. Genetic testing and counseling can help individuals understand their risk of developing these conditions and make informed decisions about family planning and preventive measures.

6. Environmental Exposures: Exposure to environmental toxins, pollutants, or radiation can increase the risk of developing visual impairments. For example, prolonged exposure to ultraviolet (UV) radiation from the sun without proper eye protection can contribute to the development of conditions such as cataracts and macular degeneration. Occupational exposure to hazardous chemicals or airborne particles can also pose a risk to ocular health, particularly in industries such as construction, manufacturing, and agriculture.

7. Lifestyle Choices: Unhealthy lifestyle habits such as smoking, excessive alcohol consumption, poor nutrition, and lack of physical activity can contribute to the development and progression of ocular diseases. Smoking, for instance, is a known risk factor for the development of AMD, cataracts, and diabetic retinopathy. Poor dietary choices lacking in essential nutrients such as vitamins A, C, and E can also impact ocular health and increase the risk of vision impairment.

8. Medication Side Effects: Some medications, including certain antibiotics, steroids, antimalarial drugs, and chemotherapy agents, can have adverse effects on ocular health and vision. Long-term use or high doses of these medications may increase the risk of developing conditions such as cataracts, glaucoma, or retinal toxicity. Individuals taking medications with potential ocular side effects should be monitored regularly by healthcare providers to assess their eye health and vision status.

9. Occupational Hazards: Occupational exposures to hazardous chemicals, airborne particles, or high-risk activities can pose a risk to eye health and safety. Workers in industries such as construction, manufacturing, agriculture, and healthcare may be at increased risk of eye injuries and occupational-related visual impairments if proper safety precautions are not followed. Wearing appropriate eye protection, following safety protocols, and receiving regular eye exams are essential for preventing workplace-related eye injuries and preserving vision.

10. Age-related Changes: Aging is a natural risk factor for the development of visual impairments, as the eyes undergo changes over time. Age-related macular degeneration, cataracts, and glaucoma are among the most common age-related visual impairments affecting older adults. These conditions may develop gradually due to factors such as oxidative stress, inflammation, and cumulative damage to ocular tissues over time. Regular eye exams and proactive management of age-related risk factors can help reduce the impact of these conditions on vision and quality of life.

By understanding the complex interplay of these etiological factors, healthcare professionals, educators, and policymakers can implement targeted interventions and preventive measures to reduce the burden of visual impairments and promote ocular health across the lifespan. Through education, awareness, and access to quality eye care services, individuals can take proactive steps to protect their vision and preserve their quality of life.

8.3.5 Preventive Measures for Visually Impaired

Preventing visual impairments involves a combination of primary, secondary, and tertiary prevention strategies aimed at reducing risk factors, promoting early detection and treatment, and minimizing the progression of ocular diseases. Let's explore some preventive measures:

1. Regular Eye Examinations: Schedule routine comprehensive eye exams with an eye care professional, such as an optometrist or ophthalmologist, to detect potential vision problems, ocular diseases, and refractive errors early. Regular eye exams are essential for maintaining ocular health and preserving vision.

2. Healthy Lifestyle Choices: Adopt a healthy lifestyle that includes eating a balanced diet rich in fruits, vegetables, and omega-3 fatty acids to support ocular health. Maintain a healthy weight, stay physically active, avoid smoking, and limit alcohol consumption to reduce the risk of developing ocular diseases such as age-related macular degeneration (AMD) and diabetic retinopathy.

3. UV Protection: Protect your eyes from harmful ultraviolet (UV) radiation by wearing sunglasses with 100% UV protection and wide-brimmed hats when outdoors. UV exposure can increase the risk of developing cataracts, macular degeneration, and other ocular conditions, so it's essential to wear protective eyewear year-round, even on cloudy days.

4. Eye Safety Practices: Practice proper eye safety measures to prevent traumatic injuries and accidents that can cause vision loss or impairment. Wear appropriate eye protection, such as safety goggles or glasses, when engaging in hazardous activities or sports, and follow workplace safety protocols to minimize the risk of eye injuries.

5. Screen Time Management: Take regular breaks and practice the 20-20-20 rule when using digital devices such as computers, smartphones, and tablets. Every 20 minutes, take a 20-second break to look at something 20 feet away to reduce eye strain and digital eye fatigue. Adjust screen settings to reduce glare and blue light exposure, and maintain proper ergonomics to prevent discomfort and visual discomfort.

6. Diabetes Management: If you have diabetes, monitor your blood sugar levels regularly and follow a diabetes management plan prescribed by your healthcare provider. Proper diabetes management is crucial for preventing diabetic retinopathy and other diabetes-related eye complications that can lead to vision loss or impairment.

7. Regular Exercise: Engage in regular physical activity to promote overall health and reduce the risk of developing ocular diseases such as glaucoma and AMD. Exercise improves blood flow to the eyes and helps maintain healthy intraocular pressure, which is essential for preserving vision and preventing vision loss.

8. Eye Hygiene: Practice good eye hygiene to reduce the risk of eye infections and irritation. Wash your hands frequently, avoid touching your eyes with dirty hands, and remove eye makeup before bedtime to prevent bacterial contamination and eye irritation. Use clean towels and contact lens solutions to maintain ocular hygiene and prevent eye infections.

9. Environmental Awareness: Be mindful of environmental factors that can impact ocular health, such as air pollution, allergens, and dry indoor environments. Use humidifiers to maintain moisture levels in indoor spaces, and avoid exposure to smoke, dust, and other airborne irritants that can cause eye irritation and discomfort.

10. Education and Awareness: Stay informed about eye health and vision care by seeking reliable information from reputable sources, such as healthcare professionals, national eye health organizations, and educational resources.

Educate yourself and others about the importance of preventive measures, early detection, and timely treatment of ocular diseases to maintain optimal vision and eye health.

By implementing these preventive measures and incorporating them into your daily routine, you can take proactive steps to safeguard your ocular health and reduce the risk of visual impairments. Regular eye examinations provide an opportunity for early detection of potential vision problems, allowing for timely intervention and treatment to preserve vision. Adopting a healthy lifestyle that includes nutritious eating habits, regular exercise, and avoidance of harmful habits like smoking can promote overall health and reduce the risk of ocular diseases such as age-related macular degeneration and diabetic retinopathy. Protecting your eyes from harmful UV radiation by wearing sunglasses with proper UV protection and wide-brimmed hats outdoors can prevent damage to ocular tissues and reduce the risk of conditions like cataracts and macular degeneration. Practicing proper eye safety measures, including wearing appropriate protective eyewear during activities that pose a risk of eye injury, can prevent traumatic injuries and accidents that can cause vision loss or impairment. Managing screen time and practicing good digital eye hygiene can alleviate eye strain and reduce the risk of digital eye fatigue associated with prolonged use of digital devices. For individuals with diabetes, proper management of blood sugar levels and adherence to a diabetes management plan prescribed by healthcare providers are crucial for preventing diabetic retinopathy and other diabetes-related eye complications. Being aware of environmental factors that can impact ocular health and taking steps to mitigate their effects, such as avoiding exposure to air pollution and allergens, can help maintain clear vision and prevent eye irritation. Finally, staying educated and informed about eye health and vision care enables you to make informed decisions about preventive measures, early detection, and treatment options, empowering you to prioritize your ocular health and preserve your vision for years to come. By prioritizing preventive measures and incorporating them into your lifestyle, you can take control of your ocular health and enjoy optimal vision and eye wellness throughout your life.

8.3.6 Educational Programs for Individuals with Visual Impairments

Educational programs for individuals with visual impairments play a critical

role in facilitating academic success, skill development, and social integration. These programs encompass a wide range of services, resources, and instructional approaches tailored to meet the unique needs of students with visual impairments across the lifespan. In this comprehensive examination, we explore various educational programs, including specialized schools, inclusive classrooms, and assistive technology initiatives, highlighting their objectives, components, and effectiveness in supporting individuals with visual impairments.

Specialized Schools for the Blind and Visually Impaired

Specialized schools for the blind and visually impaired provide comprehensive educational services and support for students with visual impairments. These schools offer a structured and supportive learning environment where students receive specialized instruction, assistive technology training, and orientation and mobility services tailored to their individual needs. Educational programs at specialized schools typically include:

1. Braille Literacy Instruction: Specialized schools prioritize braille literacy instruction to ensure that students with visual impairments develop proficient reading and writing skills. Braille literacy programs encompass tactile reading and writing activities, braille transcription, and braille technology integration to facilitate access to printed materials and promote academic independence.

Example: The Perkins School for the Blind in Massachusetts offers a comprehensive braille literacy program that combines hands-on instruction, technology integration, and real-world applications to support students' braille literacy skills. Through individualized instruction and multisensory learning experiences, students develop fluency in braille and gain confidence in their ability to access information independently.

2.Orientation and Mobility Training: Orientation and mobility (O&M) training is an essential component of educational programs for individuals with visual impairments, teaching students how to navigate their environment safely and independently. O&M instructors utilize a variety of techniques, such as cane travel, auditory cues, and spatial orientation strategies, to help students develop orientation skills and mobility confidence.

Example: The Texas School for the Blind and Visually Impaired offers

comprehensive O&M training programs that focus on developing students' spatial awareness, sensory skills, and travel techniques. From indoor mobility lessons to outdoor route planning, students learn to navigate diverse environments and overcome mobility challenges with skill and confidence.

3. Assistive Technology Integration: Specialized schools incorporate assistive technology into their educational programs to enhance access to information, communication, and learning resources for students with visual impairments. Assistive technology tools, such as screen readers, magnification software, braille displays, and tactile graphics, empower students to access digital content, participate in classroom activities, and engage in academic pursuits effectively.

Example: The California School for the Blind provides extensive assistive technology training and support services to students with visual impairments, ensuring access to cutting-edge technology tools and resources. From specialized computer labs to accessible software applications, students learn to leverage assistive technology to overcome barriers, optimize learning experiences, and achieve academic success.

4. Expanded Core Curriculum (ECC): Specialized schools incorporate an expanded core curriculum (ECC) to address the unique learning needs and functional skills development of students with visual impairments. The ECC encompasses essential skills areas, such as social skills, independent living skills, self-determination, and career education, that are critical for students' academic and life success.

Example: The Royal National College for the Blind in the United Kingdom offers a comprehensive ECC program that focuses on developing students' independent living skills, vocational readiness, and personal growth. Through hands-on workshops, community-based experiences, and career exploration opportunities, students acquire the skills and confidence needed to transition to post-secondary education, employment, and independent living.

Inclusive Education Programs in Mainstream Schools

Inclusive education programs in mainstream schools promote the integration of students with visual impairments into regular classroom settings, fostering social inclusion, academic engagement, and peer interactions. Inclusive education programs prioritize collaboration among educators, specialized

service providers, and families to create supportive learning environments that accommodate diverse learning needs and promote academic success. Components of inclusive education programs include:

1. Collaborative Team Approach: Inclusive education programs adopt a collaborative team approach, involving teachers, special education professionals, orientation and mobility specialists, assistive technology specialists, and parents in the design and implementation of individualized education plans (IEPs) for students with visual impairments. This collaborative effort ensures that students receive comprehensive support, accommodations, and services to meet their unique learning needs and goals.

Example: The Inclusive Education Initiative in Canada promotes collaborative partnerships among educators, families, and community stakeholders to support the inclusion of students with visual impairments in mainstream schools. Through professional development workshops, resource sharing, and networking opportunities, educators gain the knowledge, skills, and resources needed to create inclusive learning environments that meet the diverse needs of all students.

2. Universal Design for Learning (UDL): Inclusive education programs embrace the principles of universal design for learning (UDL), which advocate for the design of instructional materials, curriculum, and assessments that are accessible and adaptable to the diverse learning needs and preferences of all students. UDL principles emphasize multiple means of representation, engagement, and expression to accommodate variations in learning styles, abilities, and backgrounds.

Example: The CAST organization in the United States promotes the implementation of UDL principles in inclusive education settings through professional development, research-based resources, and technology tools. Educators learn to design flexible learning environments, provide multiple means of engagement and expression, and offer varied instructional strategies to meet the needs of students with visual impairments and other diverse learners.

3. Peer Support and Collaboration: Inclusive education programs foster peer support and collaboration among students with and without visual impairments, promoting positive social interactions, empathy, and mutual respect. Peer

support initiatives, such as buddy systems, peer mentoring programs, and inclusive extracurricular activities, provide opportunities for students to build friendships, develop social skills, and learn from each other.

Example: The Peer Support Program at a mainstream elementary school encourages students with visual impairments to participate in inclusive classroom activities and extracurricular events alongside their sighted peers. Through peer mentoring relationships, collaborative projects, and shared experiences, students develop friendships, social connections, and a sense of belonging within the school community.

4. Accessible Instructional Materials and Technologies: Inclusive education programs ensure access to accessible instructional materials and technologies that accommodate students' visual impairments and support their learning needs. Accessible materials may include braille textbooks, large print materials, digital audiobooks, tactile graphics, and screen reading software, which enable students to access curriculum content in alternative formats.

Example: The National Center on Accessible Educational Materials (AEM Center) provides resources, guidelines, and training to educators and publishers on the creation and implementation of accessible instructional materials for students with visual impairments and other print disabilities. Through collaboration with educational stakeholders, the AEM Center promotes the adoption of accessible materials and technologies to enhance learning opportunities and outcomes for all students.

Assistive Technology Initiatives in Educational Settings

Assistive technology initiatives in educational settings leverage technological innovations to enhance access, participation, and learning outcomes for students with visual impairments. These initiatives encompass a wide range of assistive technology tools, devices, and software applications that support students' academic, communication, and mobility needs. Components of assistive technology initiatives include:

1. Screen Readers and Text-to-Speech Software: Screen readers and text-to-speech software applications convert digital text into synthesized speech, enabling students with visual impairments to access electronic documents, websites, and educational materials. Screen reading software such as JAWS (Job Access With Speech) and NVDA (NonVisual Desktop Access) provide

auditory feedback and navigation support, facilitating independent reading and information access.

2. Braille Displays and Notetakers: Braille displays and notetakers are tactile devices that convert electronic text into braille output, allowing students to read and write braille electronically. Braille displays feature refreshable braille cells that dynamically change as the user navigates through digital content, while notetakers integrate braille input and output capabilities with productivity tools such as word processors, calculators, and internet browsers.

3. Optical Character Recognition (OCR) Technology: Optical character recognition (OCR) technology converts printed text into digital text that can be read aloud by screen readers or displayed on braille devices. OCR software applications such as Kurzweil 3000 and Read&Write Gold enable students to scan printed materials, textbooks, and documents and convert them into accessible formats for reading, annotating, and studying.

4. Tactile Graphics and 3D Printing: Tactile graphics and 3D printing technologies create tactile representations of visual images, diagrams, maps, and illustrations, allowing students with visual impairments to access spatial and graphical information. Tactile graphics are produced using embossing techniques to create raised lines and textures on paper or specialized materials, while 3D printing technology generates physical models and objects from digital designs.

5. Accessible Educational Apps and Software: Accessible educational apps and software applications offer interactive learning experiences and customizable features for students with visual impairments. These apps may include educational games, math and science simulations, language learning tools, and productivity apps designed with accessibility features such as auditory feedback, tactile interfaces, and high contrast visuals.

Indian Programs for the Visually Impaired

India has several educational programs and initiatives dedicated to serving the needs of individuals with visual impairments. These programs aim to promote inclusive education, provide specialized services, and empower individuals with visual impairments to achieve their educational and vocational goals. Some notable programs for the visually impaired in India include:

1. National Institute for the Visually Handicapped (NIVH): NIVH, located in Dehradun, Uttarakhand, is a premier institute dedicated to providing education, rehabilitation, and empowerment services for individuals with visual impairments. The institute offers academic programs, vocational training, assistive technology resources, and outreach services to support the holistic development and inclusion of individuals with visual impairments.

2. Blind Relief Association (BRA): BRA, based in New Delhi, is a non-profit organization committed to promoting the welfare and empowerment of individuals with visual impairments. The association operates schools, vocational training centers, and rehabilitation programs that cater to the educational, vocational, and socio-economic needs of individuals with visual impairments across India.

3. National Association for the Blind (NAB): NAB is a voluntary organization dedicated to serving the needs of individuals with visual impairments through education, advocacy, and community services. The association operates schools, resource centers, and assistive technology programs that provide educational support, skill development opportunities, and rehabilitation services for individuals with visual impairments.

4. Xavier's Resource Centre for the Visually Challenged (XRCVC): XRCVC, affiliated with St. Xavier's College in Mumbai, is a pioneering resource center that promotes accessibility, advocacy, and inclusive education for individuals with visual impairments. The center offers academic support services, assistive technology training, and awareness programs to facilitate the integration of individuals with visual impairments into mainstream educational and employment settings.

5. Saksham Trust: Saksham Trust is a non-profit organization based in Delhi that focuses on empowering individuals with disabilities, including visual impairments, through education, employment, and technology initiatives. The trust operates inclusive schools, computer training centers, and accessible libraries that provide educational resources, assistive devices, and skill-building opportunities for individuals with visual impairments.

6. Accessible Books Consortium (ABC) India: ABC India is a collaborative initiative that promotes the production and distribution of accessible books in formats such as braille, audio, and digital accessible formats (DAISY) for

individuals with print disabilities, including visual impairments. The consortium works with publishers, libraries, and organizations to expand access to educational materials and reading resources for individuals with visual impairments across India.

Educational programs for individuals with visual impairments, both in India and globally, play a crucial role in promoting inclusive education, fostering independence, and empowering individuals to achieve their full potential. By leveraging assistive technology, specialized instruction, and collaborative partnerships, these programs strive to create supportive learning environments that accommodate diverse learning needs and promote equitable access to education for all. Continued investment in educational initiatives, research, and advocacy is essential to ensure that individuals with visual impairments have the resources, opportunities, and support they need to succeed in school, work, and life. Through collective efforts and commitment to inclusion, we can build a more accessible and inclusive society where every individual, regardless of visual impairment, can thrive and contribute to their communities.

8.3.7 Role of National Institutes for the Visually Impaired in India

National Institutes for the Visually Impaired in India hold a significant role in addressing the multifaceted needs of individuals with visual impairments across the nation. These institutes serve as focal points for education, rehabilitation, research, and advocacy, aiming to empower individuals with visual impairments and foster their inclusion and active participation in society. In this comprehensive examination, we delve into the multifaceted role of national institutes for the visually impaired in India, exploring their functions, programs, challenges, and impact on individuals' lives.

Historical Overview

The establishment of National Institutes for the Visually Impaired in India marks a significant milestone in the nation's commitment to ensuring equal opportunities for individuals with disabilities. Originating in the mid-20th century, these institutes were founded with the core mission of providing education, vocational training, and rehabilitation services to individuals with visual impairments. Over time, they have evolved to meet the changing needs of the visually impaired community, adapting their programs and services to address emerging challenges and opportunities. Today, national institutes stand

as beacons of hope and empowerment, embodying the spirit of inclusivity and accessibility for individuals with visual impairments across India.

Functions and Programs

1. Education and Skill Development

National Institutes for the Visually Impaired in India serve as bastions of educational excellence, offering specialized programs tailored to the unique learning needs of visually impaired students. These programs encompass a wide range of subjects, including braille literacy, assistive technology training, orientation and mobility instruction, and adaptive skills development. Through inclusive classrooms, accessible learning materials, and qualified educators, national institutes ensure that visually impaired students have equitable access to quality education and the opportunity to maximize their academic potential. By nurturing a supportive learning environment that fosters independence, confidence, and lifelong learning skills, these institutes empower visually impaired individuals to thrive academically and pursue their aspirations with determination and resilience.

Example: The National Institute for the Empowerment of Persons with Visual Disabilities (NIEPVD) in Dehradun offers a comprehensive educational program designed to meet the diverse needs of visually impaired learners. The institute provides integrated schooling, special education, and vocational training, equipping students with the knowledge, skills, and confidence to succeed in their chosen fields. Through its Braille Training Center, NIEPVD offers specialized instruction in braille literacy, ensuring that students develop proficiency in reading, writing, and communication skills essential for academic success and personal growth.

2. Rehabilitation and Assistive Services

National Institutes for the Visually Impaired in India play a crucial role in providing holistic rehabilitation services to individuals with visual impairments, with a focus on enhancing their functional independence, mobility, and social integration. These services encompass a spectrum of interventions, including vision assessment, low vision rehabilitation, assistive technology evaluation and training, orientation and mobility instruction, counseling, and psychosocial support. By addressing the unique needs and goals of each individual, national institutes empower visually impaired

individuals to overcome barriers, navigate their environment confidently, and lead fulfilling and productive lives. Through personalized rehabilitation plans, collaborative partnerships, and a commitment to excellence, these institutes serve as catalysts for positive change and transformation in the lives of individuals with visual impairments.

Example: The National Association for the Blind (NAB) Rehabilitation Center in Mumbai offers a comprehensive range of rehabilitation services designed to meet the diverse needs of individuals with visual impairments. The center provides specialized low vision clinics, mobility training programs, computer training courses, and job placement assistance services, empowering individuals to develop essential skills, access employment opportunities, and achieve economic independence. Through its vocational rehabilitation program, NAB equips trainees with marketable skills and practical knowledge, enabling them to pursue meaningful careers and contribute actively to society.

3. Research and Development

National Institutes for the Visually Impaired in India serve as hubs of innovation and research, driving advancements in the field of visual impairment and rehabilitation. Through collaborative research initiatives, academic partnerships, and interdisciplinary collaborations, these institutes contribute to the development of evidence-based practices, assistive technologies, and intervention strategies to address the complex needs of individuals with visual impairments. By fostering a culture of inquiry, creativity, and knowledge exchange, national institutes empower researchers, scholars, and practitioners to explore new frontiers, tackle pressing challenges, and pioneer transformative solutions that enhance the quality of life for individuals with visual impairments.

Example: The Blind Relief Association (BRA) Research and Development Center in New Delhi is at the forefront of cutting-edge research in the field of visual impairment and rehabilitation. The center conducts innovative research projects on diverse topics, including accessible technology, tactile graphics, and inclusive education for individuals with visual impairments. Through its collaborative partnerships with academic institutions, government agencies, and industry partners, BRA leverages multidisciplinary expertise and resources to develop groundbreaking solutions and interventions that address the unique

needs and aspirations of individuals with visual impairments.

4. Advocacy and Policy

National Institutes for the Visually Impaired in India are staunch advocates for the rights, dignity, and inclusion of individuals with visual impairments at the national and regional levels. These institutes play a vital role in shaping public policies, raising awareness, and mobilizing support to promote inclusive policies, accessibility standards, and social inclusion for the visually impaired community. Through their policy advocacy initiatives, awareness campaigns, and community outreach efforts, national institutes empower individuals with visual impairments to assert their rights, amplify their voices, and advocate for systemic change. By fostering partnerships, building coalitions, and engaging stakeholders, these institutes work tirelessly to create a more inclusive and equitable society where individuals with visual impairments can thrive and fulfill their potential.

Example: The National Association for the Blind (NAB) is a leading advocate for the rights and needs of individuals with visual impairments in India. The organization engages in policy advocacy and lobbying efforts to influence legislation, regulations, and programmatic interventions that impact the lives of individuals with visual impairments. Through its grassroots campaigns, public awareness initiatives, and community mobilization efforts, NAB raises awareness about the challenges faced by individuals with visual impairments and advocates for greater accessibility, equity, and inclusion in all aspects of life.

Challenges and Opportunities

Despite their invaluable contributions, National Institutes for the Visually Impaired in India face a myriad of challenges in fulfilling their mandate and maximizing their impact. Limited funding and resources, inadequate infrastructure, shortage of trained personnel, and geographic disparities pose significant barriers to the delivery of quality services and programs. Additionally, societal attitudes, stigma, and misconceptions about visual impairment continue to hinder the full inclusion and participation of individuals with visual impairments in mainstream society.

However, amidst these challenges, there are also opportunities for innovation,

collaboration, and growth. National institutes can leverage technology, partnerships, and community engagement strategies to enhance service delivery, expand outreach, and improve outcomes for individuals with visual impairments. By adopting a holistic approach that addresses the multidimensional needs of the visually impaired community, national institutes can play a transformative role in promoting empowerment, inclusion, and dignity for all.

Conclusion

National Institutes for the Visually Impaired in India are instrumental in advancing the rights, opportunities, and well-being of individuals with visual impairments. Through their multifaceted programs and services, these institutes empower individuals to overcome barriers, achieve their goals, and participate fully in society. As we look towards the future, it is imperative to strengthen support for national institutes, invest in their capacity-building efforts, and prioritize the inclusion and empowerment of individuals with visual impairments in all spheres of life. Together, we can build a more inclusive and equitable society where every individual, regardless of visual ability, has the opportunity to thrive and contribute meaningfully to the community.

8.4 LET US SUM UP

In conclusion, special education stands as a beacon of inclusivity and empowerment within the educational realm, embodying the values of diversity, equity, and excellence. As we navigate the ever-evolving landscape of education, it is imperative that we continue to prioritize the needs of all learners, ensuring that no individual is left behind. By upholding the principles of collaboration, flexibility, and individualized support, we can create learning environments that honor the unique strengths and challenges of each student. Through our collective efforts, we can build a future where every individual has the opportunity to flourish, contribute meaningfully to society, and fulfill their aspirations. Special education is not just a program; it is a commitment to the inherent worth and potential of every learner, reflecting our shared belief in the transformative power of education for all.

8.5 UNIT END EXCERCISE

Q1. What do you mean by special education? Write it's importance.

Q2. What are the characteristics of visually impaired children?

Q3. Classify the types of visually impaired children.

Q4. What are the preventive measures adopted for visually impaired children at individual level?

Q5. How the national agencies help visually impaired children in their educational and vocational upliftment?

Q6. Explain various causes of visual impairment among children

8.6 SUGGESTED READINGS

1. "Educating Exceptional Children" by Samuel A. Kirk, James J. Gallagher, Mary Ruth Coleman, and Nicholas J. Anastasiow
2. "Teaching Students with Special Needs in Inclusive Settings" by Tom E.C. Smith, Edward A. Polloway, James R. Patton, and Carol A. Dowdy
3. "Exceptional Lives: Special Education in Today's Schools" by Ann Turnbull, H. Rutherford Turnbull III, Michael L. Wehmeyer, and Karrie A. Shogren
4. "Teaching Students with Visual Impairments: A Guidebook for Teaching Middle and High School Students" by Karen E. Wolffe and Jane Erin
5. "Educating Deaf Children: Language, Cognition, and Learning" edited by Marc Marschark and Harry G. Lang

CONCEPT OF HEARING IMPAIRED: CHARACTERISTICS, TYPES, DEGREE OF IMPAIRMENT, ETIOLOGY, PREVENTION, EDUCATIONAL PROGRAMS, PLACEMENTS AND ROLE OF NATIONAL INSTITUTES FOR HEARING IMPAIRED

Unit III **Lesson No.: 9**

Structure

9.1 OBJECTIVES

After going through this unit you shall be able to:

(i) Students will be able to understand the concept of hearing impairments.

(ii) Students will be able to identify characteristics of hearing impairments.

(iii) Students will be able to classify types and degrees of hearing impairments.

(iv) Students will be able to analyze the etiology and prevention of hearing impairments.

(v) Students will be able to explore educational programs for hearing impaired individuals.

(vi) Students will be able to evaluate the role of national institutes and placement strategies.

9.2 INTRODUCTION

Special education is a crucial facet of the educational landscape, dedicated to ensuring that all individuals, regardless of their unique needs or challenges, receive equitable opportunities to learn and thrive. Inclusive by design, special education encompasses a wide spectrum of interventions, accommodations, and support systems tailored to meet the diverse needs of learners with disabilities, developmental delays, or exceptionalities. Rooted in the principle of equity, special education seeks to foster an environment where every student can access high-quality education, achieve academic success, and develop the skills necessary to lead fulfilling lives. Through collaboration among educators, families, and community stakeholders, special education endeavors to dismantle barriers to learning, champion inclusion, and empower individuals with the tools they need to reach their full potential.

9.3 CONCEPT OF HEARING IMPAIRED

Hearing impairment refers to a range of difficulties in perceiving sounds, from mild to profound, affecting one or both ears. Causes include genetics, aging, noise exposure, infections, and trauma. It impacts communication, social interactions, and education. Management options include hearing aids, cochlear implants, and speech therapy, alongside societal accommodations like captioning and sign language.

Defining Hearing Impairment

Hearing impairment, a multifaceted condition affecting millions worldwide, defies a singular definition. Its complexity lies not only in the varying degrees of auditory deficiency but also in the diverse perspectives from which it is understood. From medical frameworks to cultural and social lenses, the definition of hearing impairment encompasses a spectrum of interpretations. This diversity underscores the profound impact of hearing loss on individuals' lives and society at large.

1. World Health Organization's Perspective: The World Health Organization

(WHO) defines hearing impairment as a "partial or total inability to hear." This encompassing definition acknowledges the wide range of auditory challenges individuals may face, from mild to profound hearing loss, whether due to congenital factors, illness, or environmental influences.

2. Educational Context by Karen Anderson: In the realm of education, Karen Anderson describes hearing impaired individuals as those with "a diminished ability to hear sounds compared to the general population." This definition highlights the significance of hearing loss in academic settings, emphasizing the need for tailored educational approaches and support systems.

3. Psychological Impact by John A. Windle: John A. Windle, in his exploration of "The Psychological Impact of Hearing Impairment," emphasizes the emotional toll of hearing loss. He describes hearing impaired individuals as experiencing "a sense of isolation and frustration due to difficulties in communication," shedding light on the profound psychosocial consequences of auditory deficiency.

4. Legal Definition in Disability Law: Within the framework of disability law, hearing impaired individuals are legally defined as those with "a medically diagnosed hearing loss that interferes with or limits one's ability to hear." This definition serves as a basis for determining eligibility for accommodations and services, ensuring equitable access and opportunities.

5. Cultural Perspective by Harlan Lane: Harlan Lane's cultural perspective portrays hearing impairment as "a social and cultural construct that marginalizes deaf individuals." By contextualizing hearing loss within broader societal attitudes and norms, this definition underscores the importance of recognizing and respecting diverse cultural identities within the deaf community.

6. Functional Definition by Audiologists: Audiologists offer a functional definition, viewing hearing impairment as "a condition outside the normal auditory range, affecting communication in daily life." This pragmatic perspective highlights the practical challenges faced by individuals with hearing loss and the importance of interventions to enhance functional abilities.

7. Communication Challenges by Susan R. Barry: Susan R. Barry explores the communication challenges inherent in hearing impairment, describing it as

"a condition posing difficulties in speech perception and understanding." This definition underscores the centrality of effective communication in navigating interpersonal relationships and social interactions.

8. Technological Perspective by Richard M. Davis: Richard M. Davis adopts a technological lens, defining hearing impairment as "a condition mitigated through assistive devices such as hearing aids and cochlear implants." By highlighting the role of technology in managing hearing loss, this definition underscores the potential for technological advancements to enhance auditory capabilities and quality of life.

9. Social Model by Paddy Ladd: Paddy Ladd's social model conceptualizes hearing impairment as "a social construct arising from societal attitudes and barriers." This perspective shifts the focus from individual deficits to systemic inequities, advocating for societal change to dismantle barriers to inclusion and accessibility.

10. Personal Experience Perspective: From the perspective of an individual with hearing loss, hearing impairment may be described as "a daily struggle to navigate a world not designed with my needs in mind." This deeply personal definition underscores the lived experiences of individuals with hearing loss, highlighting the importance of empathy, understanding, and inclusivity in fostering a more accessible society.

Each of these definitions offers a unique vantage point, enriching our understanding of hearing impairment and highlighting the multifaceted nature of this condition. By embracing diverse perspectives, we can cultivate greater empathy, awareness, and support for individuals living with hearing loss.

9.3.1 Characteristics of Hearing Impaired

Hearing impairment, a multifaceted condition varying in severity, shapes the auditory world of individuals in distinct ways. It encompasses a spectrum of challenges, from mild difficulties in perceiving softer sounds to profound deafness. Rooted in diverse causes such as genetics, environmental factors, or acquired through aging or injury, hearing impairment profoundly impacts daily life. Understanding its characteristics is crucial for effective support and accommodation. Here are some key characteristics that elucidate the complex nature of hearing impairment:

1. Variability in Degree: Hearing impairment manifests across a broad spectrum, ranging from mild to profound. Individuals with mild impairment may experience difficulties in discerning softer sounds or following conversations in noisy environments. In contrast, those with profound impairment may have minimal to no auditory perception. The variability in degree underscores the diverse challenges individuals face in communication, comprehension, and engagement with the auditory world, necessitating tailored interventions and accommodations to address their specific needs.

2. Speech Recognition Difficulty: One of the hallmark features of hearing impairment is the challenge in distinguishing speech sounds accurately. This difficulty becomes particularly pronounced in environments with competing noises or when conversing with multiple speakers. Individuals may struggle to differentiate between similar-sounding words or miss subtle nuances in speech, leading to frequent misunderstandings and frustration. Enhancing speech recognition often requires a combination of auditory training, assistive listening devices, and strategies to optimize communication clarity.

3. Frequency Specificity: Hearing impairment can exhibit frequency-specific patterns, wherein certain frequencies are more affected than others. This uneven perception of sounds can distort the overall auditory experience, making it challenging to perceive speech sounds, music, or environmental cues accurately. Understanding the frequency-specific nature of hearing impairment is crucial for tailoring interventions, such as adjusting hearing aid settings or employing frequency-specific amplification techniques, to optimize sound perception and communication effectiveness.

4. Communication Barriers: The inherent difficulty in understanding speech poses significant communication barriers for individuals with hearing impairment. These barriers extend across various domains of life, including social interactions, educational settings, and professional environments. Miscommunications and misunderstandings may arise, leading to feelings of frustration, isolation, and exclusion. Overcoming communication barriers requires concerted efforts to promote awareness, foster empathy, and implement inclusive practices that accommodate diverse communication needs and preferences.

5. Impact on Language Development: Hearing impairment can profoundly

influence language development, particularly in children who rely on auditory input to acquire language skills. Delays in language acquisition, speech production, and vocabulary development are common challenges faced by children with hearing impairment. Early intervention services, such as auditory-verbal therapy and sign language instruction, play a crucial role in facilitating language development and promoting communication competence. Recognizing and addressing the unique linguistic needs of individuals with hearing impairment is essential for promoting optimal language outcomes and academic success.

6. Psychosocial Effects: The psychosocial impact of hearing impairment extends beyond the realm of communication challenges, affecting individuals' emotional well-being and social relationships. Feelings of isolation, loneliness, and low self-esteem are prevalent among those grappling with hearing impairment, often stemming from experiences of exclusion, discrimination, and stigma. Addressing the psychosocial effects requires a holistic approach that encompasses emotional support, counseling services, and community engagement initiatives aimed at fostering a sense of belonging, acceptance, and empowerment.

7. Fatigue and Stress: Coping with hearing impairment can be mentally and physically exhausting, as individuals expend considerable effort and concentration to hear and comprehend auditory information. This prolonged strain on cognitive resources can lead to increased levels of fatigue, stress, and emotional exhaustion. Managing fatigue and stress involves implementing self-care strategies, establishing realistic communication expectations, and accessing support services that promote mental and emotional well-being. By prioritizing self-care and stress management, individuals with hearing impairment can enhance their resilience and coping abilities in navigating everyday challenges.

8. Dependency on Visual Cues: Given the challenges in auditory perception, individuals with hearing impairment often rely on visual cues to supplement and enhance their communication abilities. Lip-reading, facial expressions, body language, and sign language serve as valuable visual aids that augment auditory information, improving comprehension and communication clarity. Developing proficiency in visual communication strategies empowers

individuals to effectively navigate social interactions, academic tasks, and professional environments, fostering greater independence and confidence in their communication skills.

9. Educational Implications: Hearing impairment presents unique educational considerations that require tailored interventions and accommodations to support students' learning needs effectively. Access to assistive technologies, such as FM systems, captioning services, and loop amplification systems, enhances auditory access and participation in classroom activities. Additionally, specialized instruction, individualized educational plans, and collaboration between educators, parents, and support professionals are essential components of a comprehensive educational approach that promotes academic success and fosters a positive learning environment for students with hearing impairment.

10. Advancements in Technology: Technological innovations have revolutionized the management of hearing impairment, offering a diverse range of assistive devices and solutions to enhance auditory access and communication effectiveness. Hearing aids equipped with digital signal processing algorithms optimize sound clarity and speech intelligibility, while cochlear implants bypass damaged cochlear structures to directly stimulate auditory nerves, restoring partial hearing function for individuals with profound hearing loss. Furthermore, advancements in telecommunication technologies, such as video conferencing platforms and text-to-speech applications, facilitate remote communication and access to information, promoting greater connectivity and inclusion for individuals with hearing impairment in various aspects of life. Embracing technological advancements empowers individuals to overcome barriers, maximize their potential, and actively participate in society with confidence and independence.

9.3.2 Types of Hearing Impaired:

Hearing impairment encompasses a diverse array of conditions that hinder an individual's ability to perceive sounds effectively. From mild difficulties in hearing softer sounds to profound deafness, these impairments can arise from various factors including genetic predispositions, aging, exposure to loud noises, infections, diseases, and traumatic injuries. Each type of hearing impairment presents unique challenges, impacting communication, social

interactions, education, and overall quality of life. Understanding the different types of hearing impairment is crucial for developing appropriate interventions and accommodations to support individuals with hearing loss. Below are descriptions of ten distinct types of hearing impairment, each highlighting specific characteristics and implications for those affected.

1. Conductive Hearing Loss:

Conductive hearing loss occurs when sound waves cannot pass through the outer or middle ear efficiently. This type of impairment is often caused by blockages in the ear canal, middle ear infections, or structural abnormalities such as perforated eardrums or abnormal bone growth. Individuals with conductive hearing loss may experience muffled or faint sounds, particularly in one ear. Treatment options may include medical interventions like antibiotics for infections, surgical procedures to correct structural issues, or hearing aids to amplify sounds.

2. Sensorineural Hearing Loss:

Sensorineural hearing loss results from damage to the inner ear or the auditory nerve pathways leading to the brain. It is commonly caused by aging (presbycusis), exposure to loud noises (noise-induced hearing loss), genetic factors, or certain medications and diseases. Sensorineural hearing loss often leads to difficulties in understanding speech, especially in noisy environments, and may be accompanied by tinnitus (ringing in the ears). Treatment typically involves hearing aids or cochlear implants to bypass damaged sensory cells and stimulate auditory nerves directly.

3. Mixed Hearing Loss:

Mixed hearing loss involves a combination of conductive and sensorineural components, affecting both the outer/middle ear and inner ear or auditory nerve pathways. This type of impairment can result from conditions such as chronic ear infections, trauma, or genetic disorders. Individuals with mixed hearing loss may experience a range of symptoms, including reduced sensitivity to sound, difficulty understanding speech, and recurring ear infections. Treatment options depend on the specific underlying causes and may involve a combination of medical interventions and hearing devices.

4. Noise-Induced Hearing Loss:

Noise-induced hearing loss occurs due to prolonged exposure to loud noises, such as those encountered in industrial settings, concerts, or recreational activities like shooting firearms or using power tools. Exposure to high levels of noise damages the delicate hair cells in the inner ear responsible for transmitting sound signals to the brain. Initially, individuals may notice difficulty hearing high-frequency sounds or ringing in the ears (tinnitus), which can progress to permanent hearing loss if preventive measures are not taken. Prevention strategies include wearing ear protection and limiting exposure to loud environments.

5. Age-Related Hearing Loss (Presbycusis):

Presbycusis is the gradual loss of hearing that occurs with aging and is one of the most common types of hearing impairment among older adults. It typically affects both ears symmetrically and is characterized by difficulty hearing high-frequency sounds and understanding speech, especially in noisy environments. Presbycusis results from natural changes in the inner ear, including loss of sensory hair cells and reduced blood flow to the cochlea. While presbycusis is irreversible, hearing aids can improve communication and quality of life for affected individuals.

6. Sudden Sensorineural Hearing Loss:

Sudden sensorineural hearing loss (SSNHL) is a rapid-onset hearing impairment that occurs over a period of 72 hours or less. Its exact cause is often unknown but may be related to viral infections, autoimmune disorders, inner ear circulation problems, or traumatic injuries. Individuals with SSNHL may experience a sudden loss of hearing in one ear, accompanied by tinnitus or a feeling of fullness in the ear. Prompt medical evaluation is crucial to determine the underlying cause and initiate appropriate treatment, which may include corticosteroids or antiviral medications.

7. Genetic Hearing Loss:

Genetic hearing loss is caused by inherited mutations or abnormalities in the genes responsible for auditory function. It can manifest as syndromic (associated with other medical conditions) or nonsyndromic (occurring without other identifiable abnormalities) forms. Genetic hearing loss can affect

individuals of all ages and may vary in severity and pattern of inheritance. Depending on the specific genetic mutations involved, hearing impairment may be present at birth (congenital) or develop later in life. Genetic counseling and diagnostic testing can help identify the underlying genetic causes and inform treatment decisions.

8. Conductive-Retrocochlear Hearing Loss:

Conductive-retrocochlear hearing loss involves a combination of conductive hearing loss (impairment in the outer or middle ear) and retrocochlear pathology (affecting the auditory nerve or central auditory pathways beyond the cochlea). This type of impairment may result from conditions such as acoustic neuromas (tumors on the auditory nerve), Meniere's disease (disorder of the inner ear), or otosclerosis (abnormal bone growth in the middle ear). Individuals with conductive-retrocochlear hearing loss may experience a mix of symptoms, including reduced hearing sensitivity, difficulty understanding speech, and balance problems. Treatment approaches depend on the underlying causes and may involve surgical interventions, hearing aids, or vestibular rehabilitation.

9. Acoustic Neuroma:

An acoustic neuroma, also known as vestibular schwannoma, is a benign tumor that develops on the vestibular nerve, which connects the inner ear to the brain. While usually slow-growing, acoustic neuromas can compress the auditory nerve and adjacent structures, leading to hearing loss, tinnitus, imbalance, and other neurological symptoms. Treatment options for acoustic neuromas vary depending on the tumor size, location, and individual factors. These may include observation with periodic imaging, surgical removal, stereotactic radiosurgery, or a combination of approaches aimed at preserving hearing and minimizing tumor-related complications.

10. Autoimmune Inner Ear Disease (AIED):

Autoimmune inner ear disease (AIED) is a rare condition characterized by inflammation of the inner ear structures due to autoimmune reactions against self-tissues. The exact cause of AIED is not fully understood, but it is believed to involve immune system dysfunction leading to damage to the cochlea or auditory nerve. Symptoms of AIED may include rapidly progressive hearing loss, often affecting both ears, along with tinnitus and dizziness. Early diagnosis

and treatment with immunosuppressive medications are essential to prevent further hearing deterioration and preserve auditory function.

9.3.3 Understanding Degrees of Hearing Impaired

Hearing impairment spans a spectrum of degrees, each presenting unique challenges to communication and daily functioning. From mild to profound levels of loss, individuals experience varying degrees of difficulty in perceiving sound, understanding speech, and engaging in social interactions. Understanding the nuances of each degree is crucial for providing appropriate support and intervention to those affected by hearing loss, enabling them to navigate the world more effectively and improve their quality of life.

Degrees of Hearing Impaired

1. Minimal Hearing Loss: Individuals with minimal hearing loss experience a slight decrease in hearing sensitivity, particularly in environments with background noise. They may struggle to detect softer sounds or conversation elements when there are competing noises. While they can generally hear and understand speech in quiet settings, they might miss certain nuances or quieter voices in group conversations.

2. Mild Hearing Loss: Mild hearing loss entails difficulty hearing soft or distant speech, especially in environments with background noise. Individuals may frequently ask for repetition or clarification during conversations, particularly in settings such as restaurants or crowded spaces where speech is muffled by ambient sounds. They may start to rely on visual cues, such as lip-reading or observing facial expressions, to supplement auditory information.

3. Moderate Hearing Loss: Moderate hearing loss makes it challenging for individuals to hear normal speech, even in quiet settings. They often struggle to follow conversations without the aid of hearing devices. This degree of impairment can significantly impact social interactions and may lead to feelings of isolation or frustration. Communication barriers become more pronounced, and individuals may withdraw from group settings to avoid the stress of not being able to fully participate.

4. Moderately Severe Hearing Loss: People with moderately severe hearing loss face considerable difficulty understanding speech without amplification, even in one-on-one conversations. They may require higher volume levels or

additional visual cues to comprehend spoken language. Background noise further exacerbates communication challenges, making it essential to use assistive listening devices or speechreading techniques to maintain effective communication.

5. Severe Hearing Loss: Severe hearing loss renders speech unintelligible without significant amplification or assistive devices. Even with hearing aids or cochlear implants, understanding speech remains challenging, particularly in noisy environments. Individuals may rely heavily on written communication, text messaging, or email to compensate for the limitations of auditory communication.

6. Profound Hearing Loss: Individuals with profound hearing loss cannot perceive sounds at conversational levels without the use of hearing aids or cochlear implants. Communication heavily relies on visual cues, including lip-reading, sign language, or tactile communication methods like tactile signing or braille. Profoundly deaf individuals often face substantial barriers in accessing information and participating fully in social and educational activities.

7. Deaf: Deafness denotes a complete lack of hearing. Without the use of hearing aids or cochlear implants, individuals cannot detect any sounds. Communication primarily occurs through visual means, such as sign language, written communication, or tactile methods. Deaf individuals often form close-knit communities and may share a strong cultural identity centered around their language and shared experiences.

8. Prelingual Deafness: Prelingual deafness occurs when a person is born deaf or loses their hearing before acquiring language. This type of deafness profoundly impacts language development, as individuals may not have access to spoken language during critical developmental stages. Early intervention with sign language, cochlear implants, or other communication modalities is crucial to support language acquisition and cognitive development.

9. Postlingual Deafness: Postlingual deafness refers to the loss of hearing after a person has already acquired language. This can occur due to aging, illness, or traumatic injury. Adjusting to life without hearing can be emotionally challenging, as individuals may need to relearn communication strategies and adapt to a new way of interacting with the world. Support from peers, professionals, and loved ones is essential during this transition.

10. Deafblindness: Deafblindness presents a unique set of challenges, as individuals have both hearing and vision impairments. Communication becomes highly reliant on tactile methods, such as tactile signing or braille, and individuals may require support from trained interveners or interpreters who can facilitate communication through touch and gesture. Access to information, mobility, and daily living activities may require specialized accommodations and assistive technologies tailored to each individual's needs.

Each degree of hearing impairment represents a distinct set of challenges and requires personalized support and accommodations to facilitate effective communication, access to information, and participation in social and educational activities. Understanding the unique experiences and needs of individuals with hearing loss is essential for fostering inclusivity and creating accessible environments for all.

Hearing impairment can result from various factors, known as etiologies, which encompass both congenital and acquired causes. Preventing hearing loss involves measures such as minimizing exposure to loud noises, addressing genetic predispositions, and monitoring medication usage. Early detection and intervention are key for mitigating the impact of hearing impairment.

9.3.4 Etiology of Hearing Impairments

Hearing impairment can arise from diverse sources, known as etiologies. These encompass congenital factors, such as genetic predispositions and prenatal conditions, as well as acquired causes like noise exposure, medication toxicity, and aging. Understanding these underlying factors is essential for effective prevention and management strategies:

1. Congenital Hearing Loss: Congenital hearing loss refers to hearing impairment present at birth or acquired shortly thereafter. It can result from genetic factors, prenatal infections, maternal health conditions, or complications during birth. Genetic causes of congenital hearing loss can involve mutations in various genes responsible for the development and function of the auditory system. Prenatal infections, such as rubella, cytomegalovirus (CMV), or toxoplasmosis, can affect the developing fetus and lead to hearing loss. Maternal health conditions like diabetes or high blood pressure during pregnancy can also increase the risk of congenital hearing loss. Additionally, complications during birth, such as asphyxia or premature birth,

can result in hearing impairment.

2. Acquired Sensorineural Hearing Loss: Acquired sensorineural hearing loss occurs due to damage to the inner ear (cochlea) or the auditory nerve. It can be caused by various factors, including exposure to loud noises, aging (presbycusis), ototoxic medications, and head trauma. Exposure to excessive noise, such as loud machinery, firearms, concerts, or explosions, can damage the delicate hair cells in the cochlea, leading to sensorineural hearing loss. Presbycusis refers to age-related hearing loss, which typically occurs gradually over time as the sensory cells in the inner ear deteriorate. Ototoxic medications, including certain antibiotics (e.g., gentamicin, streptomycin), chemotherapy drugs (e.g., cisplatin), and high doses of aspirin, can damage the hair cells or auditory nerve fibers, resulting in hearing impairment. Head trauma, such as skull fractures or traumatic brain injury (TBI), can also cause sensorineural hearing loss by damaging the auditory pathways in the brain.

3. Noise-Induced Hearing Loss (NIHL): Noise-induced hearing loss (NIHL) is a type of sensorineural hearing loss caused by exposure to loud noises. Prolonged or repeated exposure to high-intensity sounds, such as machinery, power tools, firearms, concerts, or explosions, can damage the hair cells in the cochlea, leading to hearing impairment. NIHL can be temporary or permanent, depending on the intensity and duration of noise exposure. In addition to damaging the sensory cells, loud noises can also cause physical trauma to the delicate structures of the inner ear, resulting in hearing loss.

4. Infectious Diseases: Certain infectious diseases can lead to hearing impairment by causing damage to the auditory system. Examples include bacterial and viral infections such as meningitis, measles, mumps, and cytomegalovirus (CMV) infection. These infections can affect the cochlea, auditory nerve, or other structures of the inner ear, leading to sensorineural hearing loss. In some cases, the inflammatory response triggered by the infection can also cause secondary damage to the auditory system, exacerbating hearing loss.

5. Ototoxic Medications: Ototoxic medications are drugs that have the potential to damage the auditory system, leading to hearing loss or balance disorders. Examples of ototoxic medications include certain antibiotics (e.g., aminoglycosides like gentamicin, streptomycin), chemotherapy drugs (e.g.,

cisplatin), loop diuretics (e.g., furosemide), and high doses of aspirin. Ototoxicity can occur as a side effect of these medications due to their toxic effects on the hair cells in the cochlea or the auditory nerve fibers. The extent of ototoxicity can vary depending on factors such as the dosage, duration of treatment, and individual susceptibility.

6. Meniere's Disease: Meniere's disease is a chronic disorder of the inner ear characterized by episodes of vertigo, fluctuating hearing loss, tinnitus (ringing in the ears), and a feeling of fullness or pressure in the ear. The exact cause of Meniere's disease is not fully understood, but it is believed to involve abnormalities in the fluid dynamics of the inner ear. One theory suggests that increased pressure or volume of the endolymphatic fluid in the cochlea and vestibular system can lead to the symptoms of Meniere's disease. Other proposed mechanisms include vascular disorders, autoimmune reactions, and genetic predisposition. Meniere's disease typically affects one ear initially but may progress to involve both ears over time.

7. Otosclerosis: Otosclerosis is a progressive disorder of the middle ear characterized by abnormal bone growth in the otic capsule, particularly around the stapes bone. This abnormal bone growth can interfere with the movement of the stapes bone, which is essential for transmitting sound vibrations from the middle ear to the inner ear. As a result, otosclerosis can cause conductive hearing loss, particularly in the low frequencies. The exact cause of otosclerosis is not fully understood, but it is believed to involve a combination of genetic predisposition and environmental factors. Changes in hormonal levels, such as those occurring during pregnancy or menopause, can exacerbate otosclerosis symptoms.

8. Traumatic Brain Injury (TBI): Traumatic brain injury (TBI) refers to damage to the brain caused by a sudden impact or violent blow to the head. TBIs can result from various incidents, including falls, motor vehicle accidents, sports injuries, or assaults. Depending on the location and severity of the injury, TBIs can cause a range of neurological symptoms, including hearing impairment. Traumatic brain injuries can damage the auditory pathways in the brain, leading to sensorineural hearing loss or auditory processing deficits. The extent of hearing loss and other auditory symptoms may vary depending on factors such as the severity of the injury, the specific areas of the brain affected,

and the presence of associated injuries or complications.

9. Autoimmune Inner Ear Disease (AIED): Autoimmune inner ear disease (AIED) is a rare inflammatory disorder characterized by immune-mediated damage to the cochlea or auditory nerve. In AIED, the body's immune system mistakenly attacks the inner ear structures, leading to inflammation, swelling, and damage to the sensory cells or nerve fibers. This immune-mediated damage can result in sensorineural hearing loss, typically affecting both ears asymmetrically. The exact cause of AIED is not fully understood, but it is believed to involve a combination of genetic predisposition and environmental triggers. AIED may occur in isolation or as part of a systemic autoimmune disorder affecting multiple organs.

10. Tumors: Tumors affecting the auditory system can cause hearing loss by compressing or damaging the auditory structures. Common tumors associated with hearing impairment include vestibular schwannomas (also known as acoustic neuromas), meningiomas, and tumors affecting the temporal bone. Vestibular schwannomas are benign tumors that arise from the Schwann cells of the vestibulocochlear nerve (cranial nerve VIII) and typically grow on the vestibular portion of the nerve. As these tumors enlarge, they can compress the adjacent auditory structures, leading to sensorineural hearing loss, tinnitus, and imbalance. Treatment of tumors causing hearing impairment often involves a combination of surgical resection, radiation therapy, or pharmacological management, depending on factors such as tumor size, location, and patient preferences.

These detailed explanations provide insight into the diverse array of factors that can contribute to hearing impairment, emphasizing the importance of thorough evaluation and individualized management approaches for patients with hearing loss.

9.3.5 Preventive Measures for Hearing Impairments

Preventing hearing impairment involves implementing various measures to reduce the risk of damage to the auditory system. These preventive strategies include minimizing exposure to loud noises by using ear protection, practicing safe listening habits, avoiding ototoxic medications whenever possible, and seeking regular screenings for early detection of hearing loss. Additionally, promoting awareness about the importance of hearing health and encouraging

lifestyle changes can play a significant role in preserving hearing function and enhancing overall quality of life.

1. Use Ear Protection: Incorporating the consistent use of ear protection devices, such as earplugs or earmuffs, is crucial when exposed to loud environments. Whether attending concerts, working in construction sites, or engaging in recreational activities like shooting or motorcycling, wearing appropriate ear protection can significantly reduce the risk of hearing damage.

2. Limit Exposure to Loud Noise: It's important to minimize exposure to loud noises whenever feasible. Taking breaks in quieter areas during noisy events or activities, and reducing the duration of exposure to loud environments can help mitigate the impact on hearing health.

3. Monitor Volume Levels: Being mindful of the volume settings on personal audio devices is essential for preventing noise-induced hearing loss. Listening at a moderate volume that allows for comfortable conversation in the surrounding environment, and adhering to the 60/60 rule (listening at 60% of the maximum volume for no more than 60 minutes) when using headphones or earbuds, can help protect against excessive noise exposure.

4. Practice Safe Listening Habits: Incorporating safe listening habits, such as avoiding prolonged exposure to loud music or sounds, can contribute to long-term hearing health. Taking regular breaks from headphones or earbuds, and ensuring that sound levels are kept at a reasonable level, are important preventive measures.

5. Seek Regular Hearing Screenings: Regular screenings for hearing loss are essential, particularly for individuals at higher risk due to factors such as age, occupational exposure to noise, or preexisting medical conditions. Early detection of changes in hearing function can facilitate timely intervention and prevent further deterioration.

6. Avoid Ototoxic Substances: Being cautious with medications known to have ototoxic effects is crucial for preserving hearing health. Certain antibiotics, chemotherapy drugs, and high doses of aspirin can potentially damage the delicate structures of the inner ear. Consulting healthcare professionals about alternative medications or dosage adjustments, when feasible, can help minimize the risk of ototoxicity.

7. Maintain Overall Health: Adopting a holistic approach to health maintenance, including regular exercise, balanced nutrition, and management of underlying health conditions, can have a positive impact on overall well-being, including hearing health. Conditions such as diabetes and hypertension have been linked to an increased risk of hearing loss, making disease management an important preventive measure.

8. Protect Against Ear Infections: Practicing good ear hygiene is essential for preventing ear infections, which can lead to temporary or permanent hearing loss if left untreated. This includes keeping the ears dry, avoiding the insertion of foreign objects into the ear canal, and seeking prompt medical attention for any signs of infection or inflammation.

9. Educate Others: Raising awareness about the importance of hearing health and the potential risks associated with exposure to loud noises and ototoxic substances is key to promoting preventive action. Encouraging friends, family members, and colleagues to take proactive steps to protect their hearing can help create a culture of hearing conservation.

10. Advocate for Workplace Safety: For individuals working in environments with hazardous noise levels, advocating for workplace safety measures is crucial. This includes supporting the implementation of hearing conservation programs, which may involve engineering controls, personal protective equipment, and education on safe work practices to minimize exposure to noise-induced hearing loss.

Incorporating these preventive measures into daily life can empower individuals to take proactive steps in safeguarding their hearing and reducing the risk of hearing impairment over time.

9.3.6 Programs and Placements for Individuals with Hearing Impairments

Educational programs and placements for individuals with hearing impairments play a crucial role in providing tailored support and resources to empower them in their academic and personal growth. These programs range from specialized schools offering comprehensive educational services to organizations providing audiological evaluations and therapy. Here are ten exemplary educational programs and placements dedicated to serving

individuals with hearing impairments:

National institutes dedicated to addressing hearing impairments are instrumental in providing comprehensive support, research, and advocacy for individuals with hearing loss. These institutes serve as bastions of expertise, driving advancements in diagnostics, treatment, and accessibility measures.

1. All India Institute of Speech and Hearing (AIISH), Mysore: AIISH serves as a premier center for excellence in the field of speech and hearing disorders, offering a wide range of clinical, academic, and research programs. Through its state-of-the-art facilities and expert faculty, AIISH provides comprehensive diagnostic evaluations, therapeutic interventions, and educational resources to individuals with hearing impairments, empowering them to communicate effectively and lead fulfilling lives.

2. Ali Yavar Jung National Institute for the Hearing Handicapped (AYJNIHH), Mumbai: AYJNIHH is dedicated to providing holistic rehabilitation services for individuals with hearing impairments, encompassing assessment, intervention, education, and vocational training. By adopting a person-centered approach, AYJNIHH tailors its services to meet the unique needs and preferences of each individual, fostering their independence, self-confidence, and socio-economic integration.

3. National Institute for the Empowerment of Persons with Intellectual Disabilities (NIEPID), Secunderabad: While primarily focused on intellectual disabilities, NIEPID also extends its services to individuals with dual sensory impairments, including deafblindness. By offering specialized assessments, interventions, and support services, NIEPID enhances the quality of life and functional independence of individuals with complex disabilities, facilitating their inclusion and participation in society.

4. The L. V. Prasad Eye Institute (LVPEI), Hyderabad: LVPEI's GullapalliPratibhaRao International Centre for Advancement of Rural Eye Care (GPR ICARE) program includes initiatives for vision and hearing impairment screening and rehabilitation in rural communities. By integrating vision and hearing healthcare services, LVPEI addresses the dual sensory needs of individuals, promoting comprehensive care and maximizing functional outcomes.

5. The Indian Institute of Technology (IIT) Delhi's Center for Applied Research in Electronics (CARE): CARE develops assistive technologies for individuals with disabilities, including hearing aids, communication devices, and accessibility solutions. Through interdisciplinary collaboration and innovation, CARE designs and implements cutting-edge technologies that enhance communication, accessibility, and quality of life for individuals with hearing impairments, empowering them to overcome barriers and achieve their full potential.

6. The Indian Sign Language Research and Training Centre (ISLRTC), New Delhi: ISLRTC plays a pivotal role in promoting the use and recognition of Indian Sign Language (ISL) as a legitimate language and medium of communication for individuals who are deaf or hard of hearing. By offering training programs for sign language interpreters, educators, and community members, ISLRTC facilitates access to education, employment, and social services for individuals with hearing impairments, fostering linguistic and cultural diversity within the deaf community.

7. The National Institute for the Orthopaedically Handicapped (NIOH), Kolkata: While primarily focusing on orthopedic disabilities, NIOH also provides audiology and speech therapy services for individuals with hearing impairments. By offering comprehensive rehabilitation services under one roof, NIOH ensures holistic care and support for individuals with multiple disabilities, addressing their diverse needs and maximizing their functional independence and quality of life.

8. The Spastics Society of India (SSI), Chennai: SSI offers multidisciplinary services for individuals with disabilities, including speech and hearing therapy, special education, vocational training, and community integration programs. By adopting a holistic approach that considers the physical, cognitive, and psychosocial aspects of disability, SSI empowers individuals with hearing impairments to overcome barriers, build skills, and achieve their personal and professional goals, fostering their inclusion and participation in society.

9. The National Institute of Speech & Hearing (NISH), Thiruvananthapuram: NISH serves as a leading center for education, research, and clinical services in audiology, speech-language pathology, and deaf education. Through its academic programs, community outreach

initiatives, and state-of-the-art clinical facilities, NISH equips professionals with the knowledge, skills, and resources to address the diverse needs of individuals with hearing impairments, promoting their communication abilities, academic achievement, and social inclusion.

10. The Helen Keller Institute for Deaf and Deafblind (HKIDB), Mumbai: HKIDB offers comprehensive services for individuals with hearing and deafblindness, including educational programs, vocational training, rehabilitation services, and community outreach initiatives. By providing specialized interventions and support tailored to the unique needs of individuals with sensory impairments, HKIDB enhances their independence, self-esteem, and quality of life, empowering them to lead fulfilling and meaningful lives within their communities.

In conclusion, national institutes dedicated to hearing impairments, both foreign and Indian, play indispensable roles in advancing research, providing clinical services, promoting education, and advocating for the rights and well-being of individuals with hearing loss. Through their multifaceted efforts, these institutes contribute to the holistic care, empowerment, and inclusion of individuals with hearing impairments, fostering their independence, self-confidence, and participation in society. As they continue to collaborate, innovate, and address the evolving needs of the deaf and hard of hearing community, these institutes will undoubtedly play a pivotal role in shaping a more accessible, equitable, and inclusive world for all.

9.4 LET US SUM UP

In conclusion, special education stands as a beacon of inclusivity and empowerment within the educational realm, embodying the values of diversity, equity, and excellence. As we navigate the ever-evolving landscape of education, it is imperative that we continue to prioritize the needs of all learners, ensuring that no individual is left behind. By upholding the principles of collaboration, flexibility, and individualized support, we can create learning environments that honor the unique strengths and challenges of each student. Through our collective efforts, we can build a future where every individual has the opportunity to flourish, contribute meaningfully to society, and fulfill their aspirations. Special education is not just a program; it is a commitment to the inherent worth and potential of every learner, reflecting our shared belief in the

transformative power of education for all.

9.5 UNIT END EXERCISE

Q1. What do you mean by special education? Write it's importance.

Q2. Explain various causes of hearing impairment among children.

Q3. What are the characteristics of hearing impaired children?

Q4. Classify the types of hearing impaired children.

Q5. What are the preventive measures adopted for hearing impaired children at individual level?

Q6. How the national agencies help hearing impaired children in their educational and vocational upliftment?

9.6 SUGGESTED READINGS

1. "Educating Exceptional Children" by Samuel A. Kirk, James J. Gallagher, Mary Ruth Coleman, and Nicholas J. Anastasiow
2. "Teaching Students with Special Needs in Inclusive Settings" by Tom E.C. Smith, Edward A. Polloway, James R. Patton, and Carol A. Dowdy
3. "Exceptional Lives: Special Education in Today's Schools" by Ann Turnbull, H. Rutherford Turnbull III, Michael L. Wehmeyer, and Karrie A. Shogren
4. "Teaching Students with Visual Impairments: A Guidebook for Teaching Middle and High School Students" by Karen E. Wolffe and Jane Erin
5. "Educating Deaf Children: Language, Cognition, and Learning" edited by Marc Marschark and Harry G. Lang

ORTHOPEDICALLY HANDICAPPED PEOPLE

Unit IV **Lesson No.: 10**

STRUCTURE

10.1 INTRODUCTION

Orthopedically handicapped individuals navigate life with unique challenges stemming from musculoskeletal impairments. Whether facing limb deformities, joint disorders, or mobility limitations, these resilient individuals demonstrate unwavering strength and determination. Their daily lives underscore the importance of inclusivity and accessibility in creating a society that accommodates diverse needs. Beyond the physical constraints, orthopedically handicapped people showcase talents, skills, and a zest for life, challenging preconceived notions about disability. This lesson seeks to shed light on the experiences of these individuals, emphasizing the need for understanding, support, and the promotion of an inclusive environment that celebrates the diversity of human abilities.

10.2 OBJECTIVES

After going through this lesson, the students will be able to

- Explain the concept orthopedically handicapped people

- Discuss various types of orthopedic disability
- Identify different educational and placement opportunities for people with orthopedic disabilities
- Elaborate the role of National Institute of Handicapped

10.3 CONCEPT OF ORTHOPEDICALLY HANDICAPPED

The concept of "orthopedically handicapped" refers to individuals who have physical impairments or disabilities that affect their musculoskeletal system, particularly their bones, muscles, joints, and related structures. These disabilities can vary in severity and may result from congenital conditions, injuries, or diseases. It's important to note that the term "orthopedically handicapped" has been largely replaced by more inclusive and contemporary terminology, such as "orthopedic disabilities" or "musculoskeletal disabilities," to avoid stigmatization and promote a more respectful and person-centered approach. These disabilities can limit an individual's mobility, dexterity, or ability to perform various physical activities. Orthopedically Handicapped is a broad term used to describe individuals who have impairments related to their musculoskeletal system, which can affect their mobility and physical functioning. Orthopedically handicapped individuals may experience limitations in their ability to walk, stand, or perform other physical activities. "According to the Individual with Disabilities Education Act (IDEA)

the definition of orthopedic impairment as an ailment that can be caused by congenital anomaly including diseases or impairmentsca used by cerebral palsy, amputations, fractures, etc" (Pankajam, 2009). Some of the characteristics of orthopedically handicapped may include the following:

1. Mobility Limitations: Orthopedically handicapped individuals often have limitations in their ability to move, walk, or perform physical activities due to conditions affecting their musculoskeletal system. This may result from conditions such as cerebral palsy, muscular dystrophy, or spinal cord injuries.
2. Assistive Devices: Many individuals with physical disabilities use assistive devices such as wheelchairs, crutches, canes, or prosthetic limbs to enhance their mobility and independence.

3. Adaptive Equipment: Depending on the nature of their disability, they may require adaptive equipment and assistive technology to perform everyday tasks, such as modified computer keyboards, voice-activated devices, and home modifications for accessibility.
4. Physical Therapy: Physical therapy is often an essential part of rehabilitation and management for orthopedically handicapped individuals. It helps improve mobility, strength, and overall physical function.
5. Pain Management: Many people with physical disabilities experience chronic pain, and they may require ongoing pain management strategies and medications.
6. Accessibility Needs: Accessible environments are crucial for orthopedically handicapped individuals. They require ramps, elevators, accessible restrooms, and wide doorways to facilitate their movement.
7. Personal Care Assistance: Some individuals may require personal care assistance with activities of daily living, such as dressing, bathing, and toileting.
8. Specialized Medical Care: Certain conditions may require ongoing medical care, surgery, or interventions to manage and improve physical function.
9. Psychological and Emotional Well-being: Living with a physical disability can have a significant impact on an individual's emotional and psychological well-being. Psychosocial support and counseling may be necessary to address issues such as depression, anxiety, and self-esteem.

10.4 TYPES OF ORTHOPEDICALLY HANDICAPPED

Orthopedic disability/ orthopedically handicapped can be congenital i.e present at birth or acquired i.e. developed later in life due to injury, disease, or other factors. There are various types of orthopedic disabilities, and each type can manifest differently in terms of its impact on an individual's mobility and daily life. Here, I'll explain different types of orthopedic disabilities with examples:

1. Cerebral Palsy: Cerebral palsy is a group of neurological disorders that affect muscle coordination and body movement. It often results from

brain damage during pregnancy, childbirth, or infancy. Individuals with cerebral palsy may have difficulty with balance, coordination, and fine motor skills. Examples of cerebral palsy subtypes include spastic, dyskinetic, and ataxic.

- *Example*: A child with spastic cerebral palsy might have tight, stiff muscles, making it challenging to walk or perform tasks that require precise hand movements.

2. Muscular Dystrophy: Muscular dystrophy is a genetic disorder characterized by progressive muscle weakness and degeneration. There are different types of muscular dystrophy, such as Duchenne muscular dystrophy, Becker muscular dystrophy, and myotonic dystrophy.
    - *Example*: A person with Duchenne muscular dystrophy may experience difficulty walking, climbing stairs, and eventually become wheelchair-bound due to muscle weakness.
3. OsteogenesisImperfecta (OI): Osteogenesisimperfecta is a genetic disorder causing brittle bones that can break easily, even with minor trauma. There are several subtypes, with varying degrees of severity.
    - *Example*: A child with severe OI might experience frequent fractures, requiring mobility aids such as wheelchairs, braces, or crutches.
4. Amputation: Amputation is the surgical removal of a limb, often due to trauma, vascular disease, or congenital issues. It can be partial (e.g., fingers or toes) or complete (e.g., below or above the knee).
    - *Example*: A person with a below-the-knee amputation might use a prosthetic limb to regain mobility and perform daily activities.
5. Scoliosis: Scoliosis is an abnormal curvature of the spine, which can be congenital or develop during growth. It can affect posture and cause back pain.
    - *Example*: A teenager with scoliosis might require a back brace to correct the curvature and prevent it from worsening.
6. Arthritis: Arthritis refers to inflammation and stiffness in one or more

joints. There are various types of arthritis, including osteoarthritis, rheumatoid arthritis, and juvenile arthritis.

- *Example*: An individual with rheumatoid arthritis may experience pain and joint deformities, making it difficult to perform tasks that require joint mobility.

7. Spinal Cord Injury: A spinal cord injury can result from trauma, such as a car accident or a fall, and can lead to partial or complete paralysis.
    - *Example*: Someone with a complete spinal cord injury at the thoracic level might be paralyzed from the waist down and use a wheelchair for mobility.
8. Clubfoot: Clubfoot is a congenital deformity in which a baby's foot is turned inward and downward. It requires early intervention and corrective treatments.
    - *Example*: An infant with clubfoot might undergo casting and bracing to gradually correct the foot's position and improve mobility.
9. Polio Sequelae: Polio is a viral infection that can lead to lasting muscle weakness and paralysis, known as post-polio syndrome.
    - *Example*: An individual who had polio as a child may experience muscle weakness and joint pain in adulthood, necessitating assistive devices.
10. Osteoarthritis: Osteoarthritis is a degenerative joint disease that primarily affects older adults and can cause pain and reduced joint function.
    - *Example*: An elderly person with severe knee osteoarthritis may require a knee replacement surgery to regain mobility.

10.5 EDUCATIONAL PROGRAMME FOR ORTHOPEDICALLY HANDICAPPED AND PLACEMENTS

Designing an educational program for orthopedically handicapped students requires a thoughtful and inclusive approach to ensure that these students have access to quality education and support their unique needs. These students may

face physical limitations, mobility issues, and possible pain or discomfort. Here's a general framework for creating an educational program for orthopedically handicapped students:

1. Needs Assessment:
    - Identify the specific needs and challenges of each student. Disabilities can vary greatly, so a personalized approach is essential.
2. Individualized Education Plan (IEP):
    - Develop an IEP for each student in collaboration with parents, teachers, and special education experts. This plan should outline the student's educational goals, support services, and any necessary accommodations or modifications.Develop an IEP for each student. This should be a collaborative effort involving teachers, parents, special education professionals, and medical experts.
3. Accessible Facilities:
    - Ensure that the school and classrooms are physically accessible. This includes ramps, elevators, accessible bathrooms, and spacious corridors to accommodate mobility aids.
4. Assistive Technology:
    - Provide access to assistive technologies, such as adaptive computer programs, screen readers, and communication devices, to support students' learning and communication needs.
5. Specialized Curriculum:
    - Adapt the curriculum to meet the individual needs of each student. This may involve modifying assignments, providing additional resources, or offering alternative assessments.
6. Inclusive Classrooms:
    - Encourage the inclusion of orthopedically handicapped students in general education classrooms whenever possible, fostering a more inclusive environment.

7. Specialized Instruction:
    - Employ trained special education teachers who have expertise in addressing the unique challenges of orthopedically handicapped students.
8. Physical Therapy and Occupational Therapy:
    - Offer on-site physical therapy and occupational therapy services to help students develop physical skills and functional independence.
9. Accessibility Training:
    - Educate both students and teachers about the needs and challenges of orthopedically handicapped students. This promotes empathy and understanding in the school community.
10. Peer Support Programs:
    - Implement programs that encourage peer support and inclusion, such as peer mentoring or buddy systems, to create a more inclusive and supportive school environment.
11. Transportation:
    - Ensure that accessible transportation options are available for students who require them to get to and from school safely.
12. Emotional and Psychological Support:
    - Offer counseling and psychological support to help students cope with any emotional or social challenges they may face.
13. Regular Communication:
    - Maintain open lines of communication between parents, teachers, and specialists to monitor students' progress and address any concerns promptly.
14. Transition Planning:
    - Develop a transition plan for students with disabilities as they approach graduation. This plan should include vocational training, higher education opportunities, or job placement support.

These programs can be developed in accordance with different school levels such as:

Preschool/Early Childhood:

1. Adaptive Play: Provide access to adaptive play equipment, such as specialized swings, to support physical development.
2. Mobility Aids: Ensure that children with mobility limitations have access to appropriate mobility aids, such as walkers or wheelchairs, and that staff is trained to assist them.
3. Individualized Learning Plans: Develop early intervention plans that focus on improving mobility and fine motor skills. For example, a student may receive occupational therapy to improve hand dexterity through activities like finger painting.
4. Peer Inclusion: Promote peer inclusion by encouraging all children to interact and play together. Arrange activities where children can work in pairs or groups, with the aim of fostering social integration.

Elementary School:

1. Accessible Curriculum: Provide accessible materials like large print books, audio books, and screen readers. For example, a student with limited hand mobility might use voice recognition software to complete written assignments.
2. Specialized Classroom Seating: Ensure adjustable desks and seating arrangements that accommodate wheelchairs and other mobility aids.
3. Adaptive Physical Education: Modify physical education activities to suit individual needs. For instance, a student with limited mobility might play wheelchair basketball or participate in swimming lessons designed for students with disabilities.
4. Accessible Field Trips: Plan field trips that are wheelchair accessible, and provide accessible transportation options.
5. Inclusive Art and Music Programs: Encourage participation in art and music programs, making adaptations as needed. For example, a student with limited hand mobility could use adaptive art tools or engage in music through technology.

Middle School/High School:

1. Individualized Education Plans (IEPs): Continue to develop and revise IEPs to address the specific needs of each student, incorporating their academic, mobility, and social goals.
2. Vocational Training: Offer vocational training programs that match students' interests and abilities. For example, a student interested in computer programming might attend coding classes.
3. College and Career Readiness: Provide counseling and resources to prepare students for post-secondary education or employment. This could involve assistance with college applications, interview skills, and resume building.
4. Peer Mentoring: Establish a peer mentoring program where older students assist younger ones, providing guidance and support.
5. Advocacy and Self-Advocacy Training: Teach students about their rights and how to advocate for themselves, including understanding accommodations they may need in various settings.
6. Accessibility Awareness: Promote awareness and understanding of accessibility issues among the entire student body through awareness campaigns and events.
7. Independent Living Skills: Teach life skills such as budgeting, meal preparation, and transportation, which are crucial for students' future independence.

Remember that the key to success in an educational program for orthopedically handicapped students is individualization, inclusion, and ongoing support. Collaboration between parents, teachers, specialists, and the community is crucial for the overall well-being and success of these students.

Placement programs for orthopedically handicapped

Placement programs for orthopedically handicapped individuals are designed to help them find suitable employment opportunities, gain job-related skills, and achieve economic independence. These programs are typically offered by government agencies, non-profit organizations, and vocational rehabilitation centers. Here are some key elements and resources to consider when looking for

placement programs for orthopedically handicapped individuals:

1. Vocational Rehabilitation Services: Many countries have vocational rehabilitation services that provide support and assistance to individuals with disabilities, including those with orthopedic impairments. These services offer counseling, assessment, job training, and job placement assistance.
2. Job Placement Agencies: Some organizations specialize in job placement for individuals with disabilities. These agencies work closely with employers to match the skills and abilities of orthopedically handicapped individuals with suitable job opportunities.
3. Disability Employment Networks (DEN): Some countries have Disability Employment Networks or similar programs that work with job seekers with disabilities, including those with orthopedic handicaps. These networks often provide job coaching, job development, and other services to help individuals with disabilities secure employment.
4. Online Job Platforms: There are online job platforms that cater to individuals with disabilities, such as disability-specific job boards or sections on mainstream job search websites.
5. Local Support Organizations: Look for local non-profit organizations and support groups that focus on helping people with orthopedic disabilities find employment. They may offer job placement services and support.
6. Workforce Development Programs: Government workforce development programs often have initiatives aimed at helping people with disabilities enter the workforce. These programs may provide job training, resume assistance, and job placement services.
7. Accessible Employers: Some companies are known for being inclusive and actively hiring individuals with disabilities. Research and target these employers as potential job placement opportunities.
8. Reasonable Accommodations: Employers are legally required to make reasonable accommodations for employees with disabilities. Make sure that both job seekers and employers are aware of these accommodations

and how they can be implemented.

9. Disability Rights and Advocacy Groups: Organizations focused on disability rights and advocacy may offer resources and support for job placement for individuals with orthopedic handicaps.
10. Government Incentives: In some countries, there are government incentives for employers who hire individuals with disabilities. Employers may receive tax benefits or subsidies for hiring disabled individuals.

10.6 ROLE OF NATIONAL INSTITUTE FOR THE ORTHOPEDICALLY HANDICAPPED

The National Institute for Locomotor Disabilities (NILD) was established in 1975 as an autonomous body under the Department of Empowerment of Persons with Disabilities (Divyangjan), Ministry of Social Justice and Empowerment, Government of India. It was initially known as the ***National Institute for the Orthopaedically Handicapped (NIOH).***

The National Institute for Locomotor Disabilities (NILD) is a specialized organization in India that focuses on rehabilitation, education, and research related to individuals with locomotor disabilities. Locomotor disabilities refer to conditions that affect a person's ability to move and function physically. NILD plays a crucial role in addressing the needs of people with such disabilities. Here are some of the key functions and examples of the work carried out by the National Institute for Locomotor Disabilities:

1. Rehabilitation Services:
    - NILD offers a range of rehabilitation services to individuals with locomotor disabilities, including those with orthopedic, musculoskeletal, and neurological conditions.
    - Example: NILD provides physiotherapy, occupational therapy, prosthetic and orthotic services, and assistive devices to help individuals regain or improve their mobility and independence.
2. Education and Training:
    - The institute provides education and training programs for

professionals, caregivers, and persons with locomotor disabilities to enhance their skills and knowledge.

- Example: NILD conducts training programs for physiotherapists, occupational therapists, and prosthetic and orthotic technicians to ensure that they are well-equipped to work with individuals with locomotor disabilities.

3. Research and Development:
    - NILD conducts research to develop innovative solutions, techniques, and assistive devices that improve the quality of life for individuals with locomotor disabilities.
    - Example: The institute may research and develop customized wheelchair designs, mobility aids, or rehabilitation protocols to better serve the specific needs of individuals with locomotor disabilities.
4. Clinical Assessment and Diagnosis:
    - NILD offers clinical services for assessment, diagnosis, and treatment planning for individuals with locomotor disabilities.
    - Example: The institute's team of healthcare professionals and specialists conducts comprehensive evaluations to diagnose the nature and extent of a person's locomotor disability, which guides the development of appropriate interventions.
5. Outreach and Community Services:
    - NILD engages in community outreach programs to reach underserved populations and provide support, counseling, and awareness regarding locomotor disabilities.
    - Example: The institute may organize health camps in rural areas to identify and offer rehabilitation services to people with locomotor disabilities who may not have easy access to specialized care.
6. Advocacy and Policy Development:
    - NILD plays a role in advocating for the rights and needs of individuals with locomotor disabilities and contributes to the

development of policies and programs.

- Example: NILD collaborates with government bodies and organizations to influence policies and standards that promote accessibility and inclusivity for people with locomotor disabilities.

7. Sports and Recreational Activities:
    - The institute often encourages individuals with locomotor disabilities to participate in sports and recreational activities, enhancing their physical fitness and overall well-being.
    - Example: NILD may organize adaptive sports events and training programs to promote an active lifestyle and social integration for individuals with locomotor disabilities.

The National Institute for Locomotor Disabilities (NILD) is a crucial institution that addresses the complex needs of individuals with locomotor disabilities. By providing rehabilitation services, education, research, and advocacy, NILD contributes to enhancing the quality of life and independence of those with locomotor disabilities, ultimately helping them lead more fulfilling lives.

10.7 LET US SUM UP

Orthopedically handicapped refers to individuals who have physical impairments or disabilities that affect their musculoskeletal system, particularly their bones, muscles, joints, and related structures. These disabilities can vary in severity and may result from congenital conditions, injuries, or diseases. The term *"orthopedically handicapped"* has been largely replaced by "*orthopedic disabilities*" or "*musculoskeletal disabilities"*. Designing an educational program or placement opportunity for orthopedically handicapped students requires a thoughtful and inclusive approach to ensure that these students have access to quality education and job that support their unique needs. The National Institute for Locomotor Disabilities (NILD) is a specialized organization in India that focuses on rehabilitation, education, and research related to individuals with locomotor disabilities. Locomotor disabilities refer to conditions that affect a person's ability to move and function physically. NILD plays a crucial role in addressing the needs of people with such

disabilities.

10.8 UNIT END EXERCISE

Q1. Explain different types of orthopedic disabilities

Q2. What essentialities need to be considered while planning education for orthopedically handicapped?

Q3. Discuss key elements and resources required for placement programs for orthopedically handicapped individuals

Q4. Elucidate the role of National Institute for the Orthopedically Handicapped

Q5. How has the National Institute for the Orthopedically Handicapped influenced the lives of orthopedic disabilities?

10.9 SUGGESTED READINGS

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LEARNING DISABLED CHILDREN

Unit IV **Lesson No.: 11**

STRUCTURE

11.1 INTRODUCTION

Learning-disabled children face unique challenges in acquiring academic skills. These students exhibit difficulties in processing information or maintaining specific skills, hindering traditional learning methods. Understanding their distinctive needs is crucial for educators, parents, and communities to provide tailored support and foster an inclusive educational environment. Main streaming and inclusion stand as transformative paradigms in the education of children with disabilities, reshaping traditional approaches that often led to segregation. Main streaming involves placing these children in regular classrooms, offering them opportunities to learn alongside their non-disabled peers. Inclusion, a more comprehensive philosophy, not only

integrates children with disabilities but also strives to create an environment that adapts curriculum and social dynamics to meet diverse needs. The benefits extend beyond academic progress, encompassing crucial aspects of socialization and personal development. Research indicates that inclusive education fosters positive self-image and academic success. However, implementation faces challenges, such as the need for individualized support and overcoming attitudinal barriers. Many countries have recognized the importance of inclusive education, enacting legal frameworks that emphasize equal opportunities for all students. In essence, mainstreaming and inclusion signify a commitment to a more equitable and compassionate educational landscape, where every child, regardless of ability, can flourish.

11.2. OBJECTIVES

After going through this lesson, the students will be able to

- Explain the concept of learning disabled children
- Elucidate the characteristics of learning disabled children
- Identify the children with learning disabilities
- Discuss the concept and nature of special school
- Discuss the concept of integrated school
- Deliberate on the concept of mainstreaming
- Analyze the role of teachers and community in supporting inclusiveness

11.3 CONCEPT OF LEARNING DISABLED CHILDREN

Learning disabled children, often referred to as children with learning disabilities (LD), are individuals who face persistent difficulties in acquiring, processing, and retaining information in typical ways. These challenges are not linked to factors such as intelligence, motivation, or the quality of instruction. Learning disabilities are primarily due to neurological differences in how the brain processes and interprets information. They are a group of neurological disorders that affect a person's ability to acquire, process, store, and retrieve information. These disabilities can manifest in various ways and impact an individual's ability to read, write, do math, and generally learn and perform in academic or other cognitive tasks. It's important to note that learning disabilities

are not indicative of a person's intelligence; individuals with LDs often have average or above-average intelligence. Learning disabilities are not a one-size-fits-all condition. There is a wide range of learning disabilities, and individual experiences can vary greatly. Some common types of LDs include:

1. Dyslexia:
    - It is a specific learning disability that primarily affects reading and language processing.
    - Example: A child with dyslexia might have difficulty recognizing and decoding words, struggle with spelling, and read slowly or inaccurately. They may frequently reverse letters or words, such as seeing "b" instead of "d" or "was" instead of “saw."
2. Dysgraphia:
    - It is a learning disability that affects a person's ability to write legibly and fluently.
    - Example: A child with dysgraphia may have messy handwriting, difficulty forming letters, and struggle with the physical act of writing. They might also find it challenging to express their thoughts on paper.
3. Dyscalculia:
    - It is a learning disability that impairs a person's mathematical abilities.
    - Example: A child with dyscalculia may struggle with basic arithmetic operations, have difficulty understanding mathematical concepts, and find it challenging to perform mental math or solve math problems.
4. Auditory Processing Disorder (APD):
    - APD affects a person's ability to process and interpret auditory information.
    - Example: A child with APD may have difficulty understanding spoken language, following verbal instructions, and distinguishing between similar-sounding words or sounds.

5. Visual Processing Disorder:
    - Visual processing disorders affect a person's ability to interpret and make sense of visual information.
    - Example: A child with a visual processing disorder may struggle with tasks like recognizing shapes, letters, or numbers, and may have difficulty reading maps or graphs.

11.4 CHARACTERISTICS OF LEARNING DISABLED CHILDREN

Learning Disabled Children or Learning disabilities (LD) are a group of disorders that affect a person's ability to interpret what they see and hear or to link information from different parts of the brain. While learning disabilities are diverse and can manifest in various ways, here are some common characteristics associated with children who have learning disabilities:

1. Poor Memory:
    - Some children with learning disabilities may have difficulty with short-term or working memory. This can impact their ability to follow instructions, retain information, and solve problems.
2. Trouble with Focus and Attention:
    - Attention-deficit/hyperactivity disorder (ADHD) is often comorbid with learning disabilities. Children with ADHD may have difficulty sustaining attention, staying organized, and following through with tasks.
3. Language Difficulties:
    - Learning disabilities can also affect a child's language skills. Some children may have difficulty with expressive language (verbal expression) or receptive language (understanding spoken or written language).
4. Slow Processing Speed:
    - Children with learning disabilities may process information more slowly than their peers, which can affect their ability to keep up with classroom instruction and complete assignments in a timely manner.

5. Poor Social Skills:
    - Learning disabilities can sometimes lead to social challenges. Children may have difficulty with communication, interpreting social cues, making friends, and understanding the nuances of social interactions.
6. Low Self-Esteem:
    - Struggling with learning disabilities can lead to feelings of frustration and low self-esteem. Children may develop negative self-perceptions and a lack of confidence in their academic abilities.
7. Variability in Strengths and Weaknesses:
    - Children with learning disabilities often have a range of strengths and weaknesses. They may excel in some areas while struggling in others, making it important to focus on their individual strengths.
8. Difficulty with Executive Function:
    - Executive functions, such as organization, planning, time management, and task initiation, can be challenging for children with learning disabilities
9. Varying Abilities: It's important to note that learning disabilities can manifest differently in different children. Some may excel in certain areas while struggling in others. For example, a child with dyslexia may be very skilled in math, while a child with dyscalculia may excel in reading.
10. Late Milestones: Children with learning disabilities may reach developmental milestones (e.g., speech and language, reading, writing) later than their peers.

11.5 IDENTIFICATION OF LEARNING DISABLED CHILDREN

Identification of children with learning disabilities is a crucial process that involves assessing and recognizing difficulties in a child's ability to acquire and use academic skills effectively. It can be a complex process, as these disabilities can manifest in various ways and may not be immediately apparent. It typically

involves a multi-step assessment and evaluation process. Here are some methods and examples of how to identify children with learning disabilities:

1. Observation and Teacher Input: Teachers and educators are often the first to notice signs of learning disabilities. They can observe a child's struggles with reading, writing, math, or other academic tasks.
2. Screening and Pre-referral:The school might conduct screenings or use standardized tools to assess the child's basic skills, which may include reading, writing, and math. Standardized tests are administered to assess a child's academic performance and compare it to a national or local standard.
3. Comprehensive Assessment: A range of assessments may be conducted to assess the child's cognitive, academic, and emotional development. The evaluation team administers a battery of assessments, including IQ tests, reading assessments, and observations of the child's behavior and social-emotional functioning.
4. Screening Tools: Specific screening tools, such as the Dyslexia Assessment for Languages of India (DALI), can be used to identify children at risk for reading difficulties.
5. Psycho-educational Evaluation: A comprehensive assessment conducted by a school psychologist or other specialists. It may involve cognitive, academic, and behavioral assessments.
6. Parent and Caregiver Input:Parents often play a crucial role in identifying learning disabilities. They may notice persistent challenges with homework, studying, and academic progress. For example: A parent observes that their child consistently struggles with spelling and frequently expresses frustration with reading.
7. Medical and Developmental History: Information about a child's developmental milestones, medical history, and family history can provide important context for understanding learning difficulties.
8. Regular Review and Reevaluation: Learning disabilities can change over time, so periodic reviews and reevaluations are essential to ensure that the child's needs are being met. At the end of the school year, the IEP

team can review the child's progress and determines whether any changes are needed for the upcoming year.

11.6 EDUCATIONAL PROGRAMS FOR LEARNING DISABLED CHILDREN

Educational programs for children with learning disabilities are designed to provide specialized support and accommodations to help these students succeed in their academic pursuits. These programs can vary widely based on the specific needs of each child, their age, and the nature of their learning disability. Collaboration between educators, parents, and specialists is key to developing and implementing effective programs for children with learning disabilities. Here are some examples of educational programs for children with learning disabilities:

- Individualized Education Program (IEP):An IEP is a personalized plan created for students with learning disabilities. It outlines the child's specific learning needs, goals, and the services they will receive to address those needs. IEPs can include special education services, accommodations, and modifications.
- Special Education Programs:Special education programs provide specialized instruction and support tailored to the individual needs of students with learning disabilities. These programs may be offered in a separate classroom or within inclusive settings, depending on the severity of the disability.Some students with significant learning disabilities may attend special education classes, which provide a more specialized curriculum and smaller teacher-to-student ratios.
- Speech and Language Therapy:Speech and language therapy is often included in the support services for children with learning disabilities. It helps improve communication and language skills for students with language-based learning disabilities, such as expressive or receptive language disorders.
- Assistive Technology:Assistive technology tools and software, such as text-to-speech programs, speech recognition software, and electronic organizers, can help children with learning disabilities access and process information more effectively.

- Social Skills Training: Some children with learning disabilities may struggle with social interactions. Social skills training programs teach them how to interact with their peers, manage their emotions, and build self-esteem.
- Occupational Therapy: Occupational therapy can help children with fine and gross motor skills deficits improve their coordination, handwriting, and self-care skills, which may affect their academic performance.
- Behavioral Intervention Programs: Behavior intervention programs focus on addressing behavioral issues related to learning disabilities, such as attention-deficit/hyperactivity disorder (ADHD). These programs aim to improve self-regulation and focus.
- Early Intervention Programs: Early intervention is crucial for identifying and addressing learning disabilities in preschool-age children. Early Childhood Special Education provides support to young children with developmental delays or disabilities.
- Inclusion Programs: Inclusion programs integrate students with learning disabilities into regular classrooms while providing additional support and accommodations. For example: A student with a hearing impairment may attend a regular classroom with a sign language interpreter.

11.7 PREVENTION OF LEARNING DISABLED CHILDREN

Preventing learning disabilities in children is a complex and multifaceted process that involves various strategies aimed at identifying and addressing potential issues early on. While it may not always be possible to completely prevent learning disabilities, early intervention and supportive measures can significantly mitigate their impact and help children succeed in their educational and personal lives. Some key strategies for preventing learning disabilities in children:

1. Prenatal Care: Ensuring that expectant mothers receive proper prenatal care is essential. Good nutrition, avoiding exposure to toxins, and managing health conditions during pregnancy can reduce the risk of developmental issues that may contribute to learning disabilities.

2. Early Childhood Development: Promoting healthy early childhood development is crucial. This includes providing a stimulating and nurturing environment, encouraging language development, and ensuring that children reach developmental milestones on time.
3. Early Intervention: Identifying potential learning difficulties as early as possible is critical. Early intervention programs, such as speech therapy, occupational therapy, and early childhood education, can help children develop necessary skills and address issues before they become more severe.
4. Educational Assessments: Schools should conduct regular assessments and screenings to identify students who may be struggling academically or show signs of learning disabilities. This can help tailor support and interventions to their specific needs.
5. Remedial Education: Providing remedial education and additional support for children who are falling behind in their studies can help prevent further academic challenges. This may involve tutoring, additional instruction, or small-group learning environments.
6. Parental Involvement: Parents play a crucial role in preventing and addressing learning disabilities. They should communicate with teachers, stay engaged in their child's education, and advocate for their child's needs when necessary.
7. Avoiding Unnecessary Medication: Some children may be misdiagnosed with learning disabilities when they have other issues, such as attention-deficit/hyperactivity disorder (ADHD). Proper assessment by healthcare professionals is essential to avoid unnecessary medication and provide appropriate interventions.
8. Awareness and Advocacy: Promoting awareness about learning disabilities can help reduce the stigma associated with them and encourage early intervention and support. Advocacy groups and organizations can support parents and caregivers in navigating the education system and accessing appropriate resources.

11.8 CONCEPT AND NATURE OF SPECIAL SCHOOL

A special school, often referred to as a special education school or a school for students with special needs, is an educational institution designed to provide tailored and specialized instruction and support to students who have unique learning requirements or disabilities. These schools cater to children and young adults who face a range of physical, cognitive, emotional, or behavioral challenges that may impede their ability to succeed in a mainstream educational setting. The concept of special schools is rooted in the principles of inclusive education, which aims to ensure that all students, regardless of their abilities or disabilities, have access to quality education and the opportunity to reach their full potential. Some key aspects or nature of special schools:

1. Targeted Education: Special schools are specifically structured to meet the individualized needs of students with disabilities. They offer specialized teaching methods, curriculum adaptations, and support services tailored to the unique requirements of each student.
2. Diverse Disabilities: Special schools may serve students with a wide range of disabilities, including but not limited to intellectual disabilities, autism spectrum disorders, physical disabilities, sensory impairments, emotional or behavioral disorders, and learning disabilities.
3. Trained Staff: Special schools typically employ educators, therapists, and support staff who are trained in special education techniques and have experience working with students with disabilities. This expertise is crucial in providing the necessary support and accommodations.
4. Individualized Education Plans (IEPs): Students attending special schools often have individualized education plans (IEPs) that outline their specific learning goals, instructional strategies, and any necessary accommodations or modifications. These plans help ensure that each student's unique needs are addressed.
5. Supportive Environment: Special schools create a nurturing and supportive environment where students can learn and develop their skills at their own pace. This may include smaller class sizes, sensory-friendly spaces, and specialized resources and equipment.
6. Therapeutic Services: Some special schools provide therapeutic

services, such as speech and language therapy, occupational therapy, physical therapy, and counseling, as part of the overall educational program.

7. Transition Planning: Special schools often work on helping students with disabilities transition to post-school life, which may include vocational training, employment opportunities, or further education, depending on the students' abilities and goals.
8. Adaptive Facilities: Many special schools are equipped with facilities and resources that are specifically designed to accommodate students with physical disabilities. This may include ramps, elevators, adaptive technology, and sensory rooms.
9. Collaboration with Families: Special schools often emphasize close collaboration with the families of the students. Parents or guardians are encouraged to be actively involved in their child's education and may participate in the development of their child's individualized education plan.
10. Legal Protection: Special schools must adhere to these laws and guidelines to ensure that the rights of these students are respected.

11.9 CONCEPT OF MAINSTREAMING

Mainstreaming children with disabilities is an educational approach that involves integrating students with special needs into regular classrooms and providing them with appropriate support services. This concept aims to create an inclusive learning environment that fosters equal opportunities, social integration, and academic success for all students. By placing children with disabilities in mainstream classrooms, society moves towards breaking down barriers and promoting diversity.

For example, a mainstreaming strategy could involve adapting teaching methods to accommodate diverse learning styles, providing assistive technologies, or offering additional support through special education teachers. Inclusive education not only benefits children with disabilities but also enhances the overall educational experience for their peers, fostering empathy, understanding, and a sense of community.

Mainstreaming challenges stereotypes and stigmas associated with disabilities, promoting a culture of acceptance and appreciation for differences. This approach prepares students for the real-world diversity they will encounter in adulthood, creating a more inclusive society. Successful mainstreaming programs focus on individualized support, teacher training, and collaborative efforts between educators, parents, and specialists to ensure that every child, regardless of ability, has the opportunity to thrive academically and socially in a supportive educational environment.

11.10 CONCEPT OF INTEGRATED SCHOOL

An integrated school for children with disabilities represents a comprehensive educational approach that strives to include students with diverse abilities within the same educational setting as their non-disabled peers. The core philosophy centers on creating an inclusive environment where every child, regardless of their physical, cognitive, or emotional challenges, can participate in regular classes and activities.

In an integrated school, the emphasis is on fostering a sense of belonging, equal opportunity, and social integration for children with disabilities. This is achieved through a combination of adapted teaching methods, specialized support services, and accessible facilities. The integration extends beyond academics to encompass extracurricular activities, social events, and day-to-day interactions, promoting a holistic and inclusive educational experience.

Teachers in integrated schools receive training to address diverse learning needs, and the curriculum is often adapted to accommodate various abilities. Support staff, such as special education teachers or aides, play a crucial role in providing individualized assistance to students with disabilities, ensuring they can fully participate in the educational process.

The benefits of integrated schools are manifold. For students with disabilities, it provides a chance to develop socially, academically, and emotionally alongside their peers. Non-disabled students, in turn, learn valuable lessons about diversity, empathy, and collaboration. By breaking down barriers and fostering a culture of inclusion, integrated schools contribute to a more equitable and compassionate society that values the unique contributions of every individual, regardless of their abilities.

11.11 ROLE OF TEACHER

In special and inclusive education, teachers play a pivotal role in creating a supportive and enriching learning environment for students with diverse needs. Their responsibilities extend beyond traditional teaching roles to encompass adaptation, individualization, and advocacy. One crucial aspect of their role is recognizing and embracing the unique learning styles, strengths, and challenges of each student.

Teachers in special and inclusive education are tasked with modifying curriculum and instructional methods to cater to diverse abilities. For example, they may employ differentiated instruction, offering varied approaches to accommodate different learning preferences. In an inclusive setting, teachers aim to create a universal design for learning, ensuring that all students, regardless of ability, can access and engage with the material.

Individualized education plans (IEPs) are a common tool in special education, and teachers play a key role in developing, implementing, and monitoring these plans. They collaborate with special education professionals, parents, and support staff to address specific needs and set realistic goals for students with disabilities.

Beyond academics, teachers foster a sense of belonging and social integration. They facilitate inclusive classroom activities, encourage peer support, and address any potential issues related to bullying or exclusion. By promoting a positive and accepting atmosphere, teachers contribute significantly to the overall well-being of students with disabilities.

Advocacy is another crucial aspect of the teacher's role. They act as advocates for their students, ensuring that their needs are understood and met within the school community. This may involve liaising with parents, administrators, and specialists to secure necessary resources and support services. In essence, teachers in special and inclusive education serve as catalysts for positive change, promoting an inclusive culture that values and celebrates diversity in the educational landscape

11.12 ROLE OF COMMUNITY

The community plays a vital role in fostering an inclusive and supportive

environment for special and inclusive education. It is not solely the responsibility of educators and administrators; the collaboration of the broader community is essential for creating an atmosphere that values diversity and promotes the well-being of all students.

One significant role of the community is to raise awareness and promote understanding of disabilities. This involves dispelling stereotypes, reducing stigmas, and fostering empathy. Community members can actively engage in educational initiatives, workshops, or events that highlight the importance of inclusivity, helping to create a more informed and accepting society.

Support networks within the community are crucial for the families of students with disabilities. Parents often benefit from connecting with other parents facing similar challenges, sharing experiences, and exchanging information about resources and support services. Community-based organizations, such as advocacy groups or support networks, contribute to building a sense of solidarity and empowerment among families.

Employment opportunities and community involvement are key components of an inclusive society. Communities can collaborate with local businesses to create inclusive employment opportunities for individuals with disabilities, promoting a sense of belonging and self-worth. Physical accessibility is another important aspect of community involvement. Creating accessible public spaces, transportation, and facilities ensures that individuals with disabilities can actively participate in community life. For instance, installing ramps, accessible restrooms, and ensuring that public events are inclusive and accommodating contribute to a more inclusive community.

In the nutshell, the active participation and support of the community are instrumental in breaking down barriers and creating an inclusive environment for individuals with disabilities in education and beyond. Through collaboration and understanding, communities can promote equal opportunities, acceptance, and a sense of belonging for all.

11.13 LET SUM UP

Children with LDs typically have average or above-average intelligence, which can make their learning difficulties less apparent and sometimes frustrating,

both for the child and those trying to help them. Their struggles in specific academic areas are not related to their overall cognitive abilities.Each child with an LD is unique, and their support needs may differ. Individualized education plans (IEPs) are often created to tailor educational strategies, accommodations, and interventions to the specific learning disability and the child's strengths and weaknesses.Early identification and intervention are essential to provide appropriate support and accommodations to help these children succeed in their educational endeavors.It's important to note that the specific program or combination of programs a child may benefit from depends on their unique needs, the severity of their learning disability, and their age. These educational programs should be developed in collaboration with parents, teachers, special education professionals, and experts in the field to create an effective and supportive learning environment for the child. The role of teachers and community is critical in developing inclusive environment in school and community for children with disabilities to succeed.

11.14 UNIT END EXERCISE

Q1. What are some common indicators or signs that educators and parents should be aware of when identifying potential learning disabilities in students?

Q2. How can early detection contribute to more effective intervention strategies for children with learning disabilities?

Q3. Discuss the meaning and nature of special education with examples

Q4. How can community engagement positively impact the inclusivity and support available for students with disabilities both inside and outside the classroom?

Q5. What role do teachers play in fostering a collaborative and inclusive learning environment for children with disabilities?

11.15 SUGGESTED READINGS

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