**Unit VI**

**EXCEPTIONAL CHILDREN**

Meaning and characteristics challenges and educational provision for:

Mentally challenged Children, Physically challenged,Visually impaired, Hearing

Impaired, Learning disabled, Backward children, Gifted and Delinquent.

# Policies and programmes organized by government and NGOs

**Exceptional Children**

                   Exceptional children are those who deviate significantly from the normal ones. An exceptional child deviates from normal or average child in mental, physical and social characteristics to such an extent that he requires a modification of school practices or special education services or supplementary instruction in order to develop his maximum capacity.

                    The disabled, disadvantaged, disturbed and the gifted children are exceptional children. Recently such children are called with special needs.

**Characteristics of Exceptional Children**

1. Exceptional children deviate markedly from the average children.
2. Their deviation from the average children is so great that they can be easily distinguished from average children.
3. This deviation may fall in any behavioral or developmental dimensions-physical, intellectual, emotional or social.
4. These children experience peculiar problems and require modification of school practices, problems and require modification of school practices, special education and other related services in order to maximize their functioning level.

**Types of Exceptional Children**

1. **Intellectually Exceptional  (Mentally Exceptional)**

* The gifted
* The backward
* The mentally challenged
* The creative
* The underachiever
* The learning disabled

1. **Physically Exceptional**

* The deaf and dumb
* The blind and near blind
* Orthopedically handicapped
* Children with speech defects

1. **Emotionally Exceptional: Delinquents**
2. Socially Exceptional: Underprivileged children
3. Multi-Exceptional: children with more than one defect

**Mentally Exceptional Children**

**The Gifted Child**

                        A Gifted child is one who shows consistently remarkable performance in any worthwhile line of endeavor persons with an IQ higher than 140 can be accepted as exceptionally gifted. But, a gifted child need not necessarily possess a very high IQ.

**Characteristics of Gifted Children**

              A gifted child is essentially an exceptional child and possesses the following characteristics;

1. In comparison to children of his own age group, he is superior in some ability or group of abilities.
2. He learns rapidly and easily; and retains it without much drill.
3. He knows about many things of which most students are unaware.
4. He has a rich vocabulary marked by originality, which he uses easily and accurately.
5. He is extremely inquisitive. And quick in understanding.
6. A gifted child is much original in his thinking, uses good but unusual methods.
7. He is alert, keenly observant and responds quickly.
8. His span of attention is broader and he could perform difficult mental task.

**Identification of Gifted Children**

            The first step in the direction of planning special education for gifted children is to identify or separate them from the average children. The teacher can use following procedures for the identification of the gifted children:

1. Group test of intelligence can be used for the preliminary screening of gifted children. This is followed by the administration of the individual test of intelligence and based on the scores obtained the teacher can pick up gifted children.
2. A standardized achievement test or creativity test may be used t identify gifted children.
3. Schools marks and cumulative records of pupil’s achievements may give some indication of giftedness.
4. Aptitude tests, interest inventory, anecdotal records, opinions and reports of friends and teachers often help in identifying the gifted children.
5. The teacher, on the basis of his observation in the classroom and outside the classroom, can form some opinion of the child’s ability.

**Needs of Gifted Children**

            In addition to the basic psychological needs like the need for security, nee for love, need for belongingness and the need to be accepted as an individual, the gifted child may have the following special needs:

* The need for knowledge and understanding.
* The need for creativity and ingenuity.
* The need for the development of his exceptional abilities.
* The need for self-actualization.

**Education of Gifted Children**

* Separate Schools

Separate schools with adequate facilities should be provided for the gifted children in developing their specific abilities and potentialities. Service of specially trained and qualified teachers should also be made available for their guidance. But such separation is often criticized and labeled as undemocratic. The students educated in these schools develop an aristocratic attitude that might widen the gulf between the privileged and unprivileged.

* Ability Grouping

It refers to the segregation of the children into different near-homogeneous groups according to their ability. Students with more or less similar background are grouped together in the same section. Thus, children of high ability, of medium ability and of low ability are kept together in separate groups. When pupils are grouped according to their ability, all gifted children constitute a separate class. Now, learning experiences can be organized and worked out effectively in accordance with their needs and abilities. The teacher can give them advance subject matter for their study. Ability grouping creates healthy competition among students of each group, but at the same time such segregation deprives the average and slow learners of the help that may get from the gifted.

* Acceleration or double promotion

This is the process by which the progress by which the progress of the child is geared to a higher level. He is either promoted to the next higher grade in mid-sessions without completing the prescribed full term or allowed to skip a grade at the end of the course. If a child in Std.V is extraordinarily brilliant and if he can catch up with pupils of Std.VII, he might be promoted to Std.VII. As a result of this double promotion, his abilities are challenged by a quickened tempo and advanced work.

* Enrichment Programme

In enrichment programmes advanced work and extra assignments involving creative thinking and self study are given to the gifted children according to their abilities. Enrichment in its most productive form means not adding more of the same kind of content and activity to the programme but providing a greater variety of experiences of a more advanced level. They can be given responsibilities in the working of science clubs, arts clubs, sports clubs, literary and debating societies, school parliament and the like. Projects may be taken up, supplementary reading may be encouraged, and activities such as gardening, painting, dramatics and music may also be introduced.

* Triple Track Plan

According to this scheme, a uniform syllabus is prescribed for all. Average children cover it within the normal period, the dull in large period and the gifted in a shorter period in comparison to average children.

* Summer Schools

Summer schools are special education programmes arranged during summer vocation aiming academically brilliant students to supplement their thirst for knowledge. Academically talented students are selected from different parts of the state and are brought together for the special education programme. The students are provided with the best available books, and expert guidance of a group of talented teachers. After the programme is over, the students return to their regular schools. Students attend the summer school every year till they complete their final school leaving examinations

**Backward Children**

In this group of exceptional children, such children are included who when compared with their own age group children, show marked deficiency of traits.

According to Barton Hall, "Backwardness in general is applied to cases where their educational achievement falls below the level of their natural abilities".

Schonell puts Backward child is 'One who compared with other pupils of the same chronological age shows marked educational deficiency."

Burt says, 'Backward child is one who in mid-school career is unable to do the work of the class next below which is normal for his age."

**The characteristics of backward child are as given below:**

* 1. Their learning speed is very slow.
  2. Their educational attainment is less than their physical and mental abilities.
  3. They are maladjusted.
  4. They fail to learn from the usual methods.
  5. They often feel depressed in life.
  6. They fail to take advantage of school curriculum.
  7. They have the tendency for anti-social activities.
  8. They suffer from mental ill-health.
  9. Their intelligence quotient measured by intelligence test reveals low intelligence.

**Causes of Backwardness:**

Backwardness, indeed, is a personal problem. Several factors are found responsible for it. Some of them are as given below:

* 1. Ill-health. Ill-health causes backwardness.
  2. Physiological defect in them leads to their backwardness.
  3. Physical disease. They either have innate disease or develop symptoms.
  4. Quarrel in the family lead to the development of backwardness among children.
  5. Lower intelligence quotient obtained from the test reveal that low intelligence is the cause of backwardness.
  6. Illiteracy among parents causes backwardness among children.
  7. Negative parental attitude also causes backwardness.
  8. Large size of the family is also responsible for backwardness among children.
  9. Lower economic status also causes backwardness in children.
  10. Bad habits of the parents are responsible for backwardness in children.

Backward children, imminently, need the following services:

(a) Provision of guidance-There should be provision of guidance service in the teaching programmes of the backward children.

(b) Provision of trained teachers - There should be provision of trained teachers for the backward children in the education programme of the backward children.

(c) Check-up and necessary treatment - Regular check-up and necessary treatment should be provided in order to outgrow their physical and physiological problems.

(d) Re-adjustment in homes and schools - The backward children should be helped to re-adjust in schools and homes. Through sincere love, affection and sympathetic attitude they can be encouraged for the purpose.

**Mentally Retarded**

  A Mentally retarded child ( MR child) is one who shows significantly subnormal general intellectual functioning existing concurrently with deficits in adaptive behaviour and manifested during the development period.

       According to Page, “mental deficiency is a condition of sub-normal mental development, present at birth or early childhood and characterized mainly by limited intelligence and social inadequacy”.

     People with less than average mental ability are called mentally retarded.

**Characteristics of MR children**

1. They are dependent and feel difficulty in managing themselves.
2. In comparison with children of their own age, their rate of intellectual development is too low.
3. They feel difficulty in shifting one type of activity to another.
4. They are very poor at following general verbal instructions.
5. They lack much in the power of observation, imagination, thinking and reasoning and ability to generalize.
6. They are poor at abstraction and can only think in terms of concrete objects and situations.
7. They are socially and emotionally maladjusted personalities.

**Classification of MR Children**

1. **Mild**  
    The following criteria must be met in order to diagnose an individual with mild intellectual disabilities:

Has an IQ between 50-70  
Does not have any unusual physical signs  
Takes slightly longer than normally expected in all aspects, such as takes longer to learn how to talk and communicate  
Is capable of independent self-care  
Is capable of learning practical skills  
Knowledge of reading, writing, and math skills are limited to grade 3-6  
Is capable of social interactions, is communicative, and conforms socially  
Is capable of functioning in society  
**2. Moderate**  
 The following criteria must be met in order to diagnose an individual with moderate intellectual disabilities:  
Has an IQ between 35-49  
Could have unusual physical signs  
Is noticeably delayed in all aspects, such as speech, reading, and writing  
Is capable of grasping simple communicative skills  
Is capable of learning basic health, self-care, and safety skills  
Can perform simple activities and supervised tasks  
Is capable of traveling unaccompanied to familiar places  
**3. Severe**  
 The following criteria must be met in order to diagnose an individual with severe intellectual disabilities:  
Has an IQ between 20-34  
Is noticeably motor impaired  
Is significantly delayed in certain areas such as walking  
Has little or absolutely no communicative skills, but has some ability to understand speech and respond to a small extent  
Is capable of being taught daily and repetitive activities  
May be taught to carry out simple self-care activities  
Requires supervision and directions in social settings  
**4.Profound**  
 The following criteria must be met in order to diagnose an individual with profound intellectual disabilities:  
Has an IQ lesser than 20  
Is significantly slower and delayed in all aspects  
There is presence of congenital abnormalities  
Needs to be supervised closely  
Requires the care of an attendant  
May respond positively to physical and social activities, if made to practice on a regular basis  
Is incapable of performing self-care activities

**Causes of Mental Retardation**  
 Not all the causes of mental retardation are known; however, more than 200 have been identified, and many others are suspected. The known causes can be placed into five categories:  
     1   Genetic Irregularities - for example x-ray exposure, incompatibility of genes inherited from parents, Rh blood factor incompatibility, error in metabolism, or recessive genetic traits. Examples of genetically-caused mental retardation are Down syndrome, fragile X syndrome, and phenylketonuria (PKU).  
    2    Pregnancy Complications - for example poor nutrition, German measles, tumors, glandular disorders, infections, exposure to toxic agents, or radiation. Mental retardation can result when something goes wrong with the baby's development  in the womb. There may be a problem with the way the baby's cells divide as it grows. Exposure to alcohol or rubella during pregnancy may also cause a baby to be born mentally retarded.  
     3   Birth Problems - for example premature birth, too rapid birth, prolonged birth, or any circumstance that reduces the oxygen supply to the infant’s.  
     4  Early Childhood Problems - for example childhood diseases, especially in the very young (chicken pox, measles, meningitis, whooping cough); high fevers, severe injuries to the brain, lack of certain chemicals in the blood, or glandular imbalance. Mental retardation can also be caused by extreme malnutrition, inadequate medical care, or exposure to poisons such as lead or mercury.  
 5 Environmental Factors - for example being born and raised in a deprived environment where there is little opportunity to learn; or serious emotional problems.

**Education of MR children**

      The first step in the education of MR children is to identify and segregate them from normal children and direct them to special schools. In special schools, on the basis of the degree of severity of their retardation, MR children are grouped into distinct categories like Educable Mentally Retarded (EMR), Trainable Mentally Retarded (TMR) And Custodial Mentally Retarded (CMR). Educational programmes are then planned for each category.

1. The special schools should provide the environment essential for maximum development of the abilities and capacities of all mental retardates.
2. Curriculum, methods of teaching and tools for evaluation should be adjusted according to their individual needs.
3. In special schools, greater emphasis should be placed on their emotional and social adjustment and desirable personal habits.
4. The learning task should be brief and uncomplicated.
5. Learning task should be applied to objects, problems and situations in the learner’s life environment.
6. Over learning must be built in to the lessons.
7. Educational programme for the EMR : during early school years they may be given instruction in simple arithmetical concepts, understanding of the home and community and early development of good work habits. Formal reading and writing instruction must be started preferably at the age of 9 or 10.
8. Educational programme for TMR: They may be helped to acquire self-managing skills like independent eating, dressing toileting etc. Simple academic skills like learning to recognize common sings and symbols  etc. Their curriculum may also include activities for teaching unskilled occupational jobs.
9. Educational programme for the CMR: the educational programme for these children must lay strong emphasis on self-managing skills like feeding, toilet training washing etc.

**Creative Child**

A creative child is one who has got an ability to create, discover or produce a new idea or objects including the rearrangement or reshaping of what is already known to him. A creative child is curious, resourceful, flexible, open-minded and sensitive to problems and shows originality of ideas and expression.

According to Skinner, a creative thinker is one who explores new ideas and makes new observation, new predictions and new inferences.

          Spearman defined creativity as the power of human mind to create new contents by transforming relations and there by generating new correlates.

**Characteristics of Creative Children**

The following are the important characteristic features of a creative child:

i)       He demonstrates originality in ideas and action.

ii)     He develops intuition in his problems.

iii)   Possesses a high degree of keenness, attentiveness, alertness, and power of concentration.

iv)    He is very curious by nature and possesses foresightedness in abundance.

v)      Possesses a high degree of sensitivity towards problems.

vi)    He demonstrates the ability to transfer learning from one situation to another.

Vii) He demonstrates very rich creative imagination and is divergent and diversified in his thinking.

**Identification of Creative Children**

The teacher can identify a creative child by making use of a test of creativity or by making use of non-testing devices like observation, interview, rating scale, check-list etc. Examples for test of creativity are given below

i) Minnesota Test of Creative Thinking

ii) Wallach and Kogan Creativity Instruments

**Role of the Teacher**

The teacher can take following steps to foster creativity among his students:

i)       Divergent thinking develops creativity. So encourage the children to think about as many ideas as they may for the solution of the problem.

ii)     Originality on the part of the children in any form should be encouraged.

iii)   Appropriate opportunities and atmosphere for creative expressions should be provided in the school. The child should never be snubbed for his curiosity and creativity.

iv)    Develop healthy habits like industriousness, persistence, reliance, self-confidence etc. which will help in creative out-put.

v)      Factors like conservation, unsympathetic treatment, fixed and rigid habits of work, anxiety and frustration, over emphasis on school T marks, authoritarian attitude of parents and teachers etc. block creative thinking. So such factors should be eliminated

vi)    Artistic expression gives an opportunity to originate new ideas. Schools can develop creativity through artistic expression by providing materials.

vii)  Students should be given full freedom for the development of their imagination because imagination helps in the development of creativity.

**Special techniques for fostering creativity**

i. Elaboration

The individual is provided with skeleton outline of a problem and by use of his imagination he completes the problems. This problem of elaboration gives an opportunity to the individual to develop his reasoning, thinking and problem solving abilities that are important ingredients of creativity.

ii. Brain storming

It is a popular method of group thinking developed by Osborn in 1957. In this technique, a group is allowed to explore ideas without judgement or censure. No evaluation or comment of any sort should be made until the session is over. Students are encouraged to volunteer whatever ideas strike to them. The ideas are recorded for later evaluation. It has been found that the technique increases divergent thinking.

iii. Synectics

It is a creative problem solving technique which uses analogies, metaphors and fantasy to trigger idea generation. It is developed by Gordon in 1961. It is closely related to brainstorming. The term synectics has its origin from the Greek word synectikos meaning ‘fitting together diverse elements’. Since creativity involves the coordination of things into new structures, every creative thought or action draws on synectic thinking. Synectic thinking is the process of discovering the links that unite seemingly disconnected elements. It is a way of mentally taking things apart and putting them together to furnish new insight for all types of problems. Synectics give a guide for generating new ideas. It is often summarized as ‘making the strange familiar and the familiar strange’. It is central to synetics that better understanding of a problem is attained when it is strange or unfamiliar and allows us to think of an analogy or metaphor that makes it more familiar and hence more amenable to a creative solution.

Synectics is a slightly more structured type of brainstorming that focuses on analogical reasoning as its main instrument. A key feature of synectics is to never discount an idea, no matter how strange or whacky it is; instead, work with the idea to tame it.

**Under Achievers**

    An under achiever is a student who fails to achieve his or her potential or doesn’t do as expected. They may be quick in thinking, quick to criticize, quick to justify their behaviour but fails to achieve as expected. Under achieving students have a significant gap between their ability and what they produce and achieving in school.

**Characteristics of Under Achievers**

1. Intellectually bright
2. May have basic skills for learning
3. Very quick in thinking and reasoning
4. May not have the ability to express what they know
5. Unique way of presenting

**Strategies for educating under achievers**

1. Respect child’s individuality
2. Set small attainable goals
3. Find alternative ways to achieve more
4. Give positive feedback
5. Allow children to investigate and discover their interest
6. Use different modes of evaluations

**The Learning Disabled Children**

Learning disabilities are neurological differences in processing information that severely limit a person’s ability to learn in a specific skill area. everyone has differences in learning abilities, but people with learning disabilities have severe learning problems that persist throughout their lives. Learning disabled people may have difficulty in school or on the job. Learning disabilities also impact independent living and social relationships.

**Characteristics of Learning Disabled Children**

1. Doesn’t make connections in similar learning concepts. E.g 5+3=8 becomes an unknown when asked what 3+5 equals.
2. Has difficulty in comparing things or classifying and sorting items according to a specific criteria
3. Time concepts present difficulty, before, after, etc
4. Often doesn’t get jokes or ideas in humorous situations
5. Creativity and imagination is usually limited
6. Often slow to respond
7. Difficulty with number concepts
8. Often requires a great deal of clarification and one to one support
9. Difficulty in remembering facts
10. Confusing basic words ( dog, cat, run)
11. Poor coordination , ‘accident prone’ unaware of physical surroundings
12. Having a hard time learning the connection between letters and sounds
13. Problems with planning
14. Transposes number sequences and confuses arithmetic signs.

**Types of learning disabilities**

         Learning disabilities can be categorized either by the type of information processing that is affected or by the specific dificulties caused by a processing deficit.

a.    Information processing deficits

Learning disabilities fall into broad categories based on the four stages of information processing used in learning.

      Input

This is trhe information perceived through the senses, such as visual and auditory perception. Difficulties with visual perception can cause problems with recognizing the shape, position and size of items seen.

     Integration

This is the stage during which perceived input is interpreted, categorized, placed in a sequence or related to previous learning. Students with problems in these areas may be unable to tell a story in the correct sequence, etc

       Storage

Most memory difficulties occur in the area of short – term memory, which can make it difficult to learn new material without many more repetitions than is usual.

       Output

Information comes out of the brain either through words, that is, language output, or through muscle activity, such as gesturing, writing or drawing.

b.    Specific learning disabilities

* + Reading Disorder( Dyslexia)
  + Writing Disorder ( Dysphasia)
  + Dyscalculia ( math disabilities)
  + Dyspraxia ( difficulties with motor skills)
  + Disorders of speaking and listening
  + Auditory processing disorder

**Strategies for Teaching Students with Learning Disabilities**

* Reduce course load for the student with learning disabilities.
* Provisions for special schools or classes
* Always ask questions in a clarifying manner, and then have the students with learning disabilities describe his or her understanding of the questions.
* Use plenty of examples, oral or otherwise, in order to make topics more applied.
* Give assignment both in written and oral form
* Provide and teach memory associations
* Write legibly, use large type; do not clutter the blackboard with non- relevant information.

**Physically Handicapped Children**

A physically handicapped child is one who possesses a physical defect which reduces his efficiency in performing his personal and social obligations according to a socially determined standard.

A physically handicapped person is defined as a person who has a disability of locomotor and neurological origin which constitutes a disadvantage or restriction in one or more aspects of daily living activities, including work.

**Types of physically handicapped individuals**

The physically handicapped persons generally divided as four:

1. The visually handicapped or Blind

2. Acoustically handicapped or Deaf

3. Speech handicapped or Mute

4. Orthopedically handicapped or crippled

**Visually handicapped children**

A visually handicapped individual is one who suffers from total or partial visual impairment. Blindness is regarded as the most severe and traumatic physical handicaps. Visual difficulties may influence the life of the individual in the physical, mental, social educational and vocational aspects.

The important problems experienced by visually handicapped children are the following.

* 1. Poor intelligence: Since visually handicapped children have impairments in the exploration of the environments, they have deficiency in the concept formation resulting in their poor performance in intelligence tests.
  2. Academic retardation: Visual impairment results in slower acquisition of information by observation. They also possess a slower reading rate and lack concreteness in instructional procedures.
  3. Personality disorder: One’s life experience plays a vital role in personality development. For congenitally blind children life experiences are totally different from that of a normal individual. As such blind and partially sighted individuals are more likely to experience nervous strain and the feeling of insecurity and frustrations are common with them.
  4. Problems in social adjustment: inferiority due to the handicap, ridicule of normal children, etc.failure in school subjects lead to maladjustment of blind and partially sighted children.

**Educational Provisions**

Differential treatments are required for the education of totally blind and partially sighted children.

**Education of totally blind**

The following educational provisions can be made for the education of totally blind individuals

1. Residential blind schools: Blind children require for their education special equipment, special method and medium as well as the application of special principles of teaching. Braille classes will provide supplementary assistance to the blind child to participate in the regular classroom instruction.
2. Special equipments : Since blind children require education through touch and hearing, steps should be taken to provide them with specially designed charts, models, relief maps, globe, sound generating equipments, electronic equipments and computers with voice manipulator etc. so that they can touch, handle, hear and understand many things.
3. Physical and art education : Physical activities like gymnastics swimming, rowing, wrestling etc should find place in the physical education for the blind. Various types of handicrafts, provision for teaching music, handling musical instruments etc are also included in physical education.
4. Vocational training: Emphasis should be given to the vocational education of blind children. Vocational training such as book binding, candle making, soap making, making of household utensils etc. should be integrated with usual classroom teaching.
5. Special education principles are recommended for the blind such as concreteness, unified instruction, additional stimulation and self activity.

**Education of partially sighted children**

The following provision can be made for the education of partially sighted children:

1. Special class: provision should be made at the Educational District level to provide quality education to the partially blind children by arranging special classes in a centrally located school with special teachers and boarding facilities.
2. Special co scholastic activities: organize co curricular activities where eyesight will not be a deciding factor to win, so that partially sighted children also could succeed. This will help them from developing inferiority which may affect their social adjustability and further success in life.
3. Minimum Visual tasks: Partially sighted children must be provided with tasks which never put strain on their vision. Delicate mathematical constructions, laboratory work and meticulous observations are strictly prohibited for them.
4. Classroom arrangements: The teacher must see that in the class, these children should be front-benchers. The teacher must write in the bold letters on the blackboard which should be legible and unambiguous. The teacher may speak what he writes on the blackboard. Books with bold letters should be kept in the library to cater to the needs of these children. They should be provided with hand lens, magnifying glasses etc.Book printed in large clear characters, pencils with thick soft leads and unglazed paper should be made available to them.

**Aurally or Acoustically handicapped children**

Aurally handicapped children are those who have difficulty in hearing either one or both ears or have no power of hearing at all. Such individuals lack the sense of hearing wholly or in part. Generally they are known as deaf. People who are deaf can be categorized into two groups: congenitally deaf and adventitiously deaf.

**Causes of hearing impairment**

1. Genetic defects :hereditary factors may sometimes cause hearing impairment. It may be present at birth or develop later in life.
2. Prenatal causes :Maternal malnutrition and unhealthy living conditions during pregnancy, overdose of strong drugs like streptomycin, quinine and LSD are associated with hearing impairment.
3. Prenatal causes : full time delivery followed by anoxia problems, use of forceps in delivery, instrumental delivery, premature delivery, use of anesthetic agents in delivery etc cause hearing impairment.
4. Postnatal causes: brain fever, brain tumor, whooping cough, typhoid fever, encephalitis, mumps etc. are post natal causes of hearing impairment.
5. Psychological causes : include emotional depression and trauma.
6. Accidents, severe burns, toxic drugs, surgical errors etc.

**Educational provision**

A brief of outline of the educational provisions for the hearing impaired are given below:

1. Use of hearing aid : auditory training should be given to hearing impaired children with the help of wearable hearing aids.
2. Speech reading: it is an art of understanding a speaker without hearing just by watching the movements of lips and tongue and other facial expression.
3. Vocational training: residential vocational schools with specially trained teachers to teach normal curriculum as well as vocational subjects will equip hearing impaired children to face the challenges of future life.
4. Preschool education: It is required to enhance the self confidence and moreover, it invites a clear cut avenue for the child’s successful integration into regular class.
5. Classroom arrangements. The seating arrangement in the classroom should be done such a way that the hearing impaired children become frontbenchers.

**Speech handicapped children**

A Speech handicapped child is one whose speech deviates so far from the speech of other people that it calls the attention to itself interferes with communication or causes discomfort or distress to the speaker or listener. Speech may be considered defective when it is not easily audible to the listener.

**Types of speech disorders**

* 1. Disorders of articulation: it includes distortion, omission, addition or substitution of speech sounds and mispronunciation of entire word or words.
  2. Disorders of phonation: It is characterized by marked deviation in loudness quality, pitch or intensity of sound.
  3. Delayed speech : It may be due to hearing loss, mental retardation, cerebral dysfunction, emotional disturbances and environmental deprivation. Very often, children do not speak at the usual age due to lack of motivation.
  4. Stuttering and Stammering : In stuttering the child has hesitations in the flow of speech prolongations and repetitions of sounds, words or phrases frequently accompanied by facial grimaces, rapid eye blinking, irregularities of breathing and muscle tension. In stammering, the child is unable to produce any sound for a brief spell and then suddenly sound come out in a violent flow.

**Causes of Speech Impairment**

The following are some important causes of hearing impairment:

* 1. Organic causes: include palatal anomalies, dental irregularities, paralysis and tumours of the larynx, deformation of jaw and lips, brain damage etc.
  2. Functional causes: imitation of the speech faults of an adult member of the family or playmate may lead to anomalous speech. Children learn to speak in a fallacious manner, if they hear faulty vocabularies.
  3. Psychological causes : recent investigations has attributed to children’s reactions to environment, particularly to parents as one of the major reasons for speech impairment. Some psychologists are of the opinion that speech defects are the outcome of disturbed feeling or emotions, faulty language habits arising from social pressure.
  4. Loss of hearing : If the child’s hearing is impaired ,the auditory input is distorted which in turn lead to impairment.
  5. Influence of social environment: an improvised environment which lack stimulation, may lead to speech defects because children do not get chance to learn new words.

**Role of teacher**

The teachers could take the following steps to help children with speech defects:

1. Identify children with speech defect and direct them to language therapist.
2. Speech training :activities like rhymes, jingles and speech games are suggested in speech training activities.
3. Extra-curricular activities: arrange visit to places of interes museums, factories, workshops, dams, or lakes, zoo etc.
4. Care for the impaired children : the love and sympathy of the teacher can contribute a lot to help improve the child’s speech. Teacher should encourage such children and take steps to eliminate all conflicts, threats, fear and worry to the possible extent.

**Orthopedically handicapped**

An orthopedically handicapped child is one who suffers from a defect that is accompanied by one or another type of deformity that inhibits the normal exercise of his muscles, joint or bones. The term includes impairments caused by a congenital anomaly (club foot), dwarfism)impairment caused by disease(poliomyelitis, muscular dystrophy, bone tuberculosis)and impairments from accidents.

**Causes of orthopedic handicap**

The causative factors of orthopedic handicaps are the following:

1. Hereditary causes: certain orthopedic deformities like dwarfism, clubfoot, webbed fingers etc are inherited to the individual from the parents through the genes.
2. Congenital causes: infection maternal malnutrition, glandular disorders and drugs may cause deformities like missing bones, bow leg, malformed bones etc.present at the time of birth.
3. Acquired causes: these include birth injury, accidents, nutrition deficiency, viral infection etc.

**Educational Provisions**

The following are some of the provisions for the education of orthopedically handicapped children

1. Vocational training : provide vocational training to orthopedically handicapped children as far as possible.
2. Adjust the school equipments : considering the deformity, specially designed chairs and tables should be made available to the orthopaedically handicapped children.
3. Access to school facilities : the classroom, library, toilet room, laboratory, auditorium etc must be within the reach of the orthopeadically handicapped children.
4. Health programme: the school must have health and physiotherapy programmes regularly aiming the orthopedically handicapped children.
5. Recreational need: teacher should see that the orthopedically handicapped children are provided with recreational facilities.
6. Teacher’s role : genuine effort must be made to assist the children to the maximum extent possible to accept their handicaps, be self reliant and adjust to their limitations. adjust the classroom activities, evaluation scheme etc to meet the needs of orthopaedically handicapped children.

# Policies and programmes organized by Non Governmental Organizations (NGOs)

The important educational provisions that are organized for exceptional children by the NGOs are the following:

1. Integrated education for disabled children
2. Provides scholarships
3. Provides learning aids for special schools
4. Preparatory classes for exceptional children before attending the classes at inclusive setting
5. Compensatory classes clarifications of ideas
6. NGO’s supports Governmental bodies to monitor and review the implementation of all educational programmes for exceptional children
7. Provides remedial instruction
8. Provides provision for outdoor games and activities, co-curricular and work experience activities which help in the retention of such children in the schools
9. Provides special attention to motivating parents to educate the exceptional children

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