
UNIT 3 TEACHING LEARNERS WITH SPECIAL NEEDS

Structure

- 3.0 Objectives
- 3.1 Learners with Special Needs :
Exceptional Children
- 3.2 Disabled Children in Regular Schools
- 3.3 Integrated Education : The Indian Context
- 3.4 Some Facts about Speech, Language and Hearing Disabilities
- 3.5 The Role of Regular Teachers
- 3.6 Rethinking Disability and Curriculum
- 3.7 Let Us Sum Up
- 3.8 Key Words
- 3.9 Suggested Reading
- 3.10 Answers
Appendix

3.0 OBJECTIVES

After going through this unit you should

- have a general understanding of the nature of disabilities that can affect learning.
- be able to recognize some common learning problems associated with speech, language and hearing disabilities.
- have an appreciation of the teacher's responsibility in an integrated set up (i.e. disabled children placed in regular schools).
- be familiar with simple procedures that will help learners with special needs.
- have an appreciation of the role of external factors (i.e., factors other than the disability itself like culture, curriculum, etc) which play an important role in causing learning difficulties.

3.1 LEARNERS WITH SPECIAL NEEDS: EXCEPTIONAL CHILDREN

In all our references to learners so far, we have implicitly been talking of normal children. We do, of course, recognize that individual differences exist in personal aptitudes (within a given age level), mental ability, initiative, motivation, self-confidence, social adjustment, health and stamina and so on. Normality is thus not a narrowly defined and idealized condition. Instead, it must be recognized that a wide range of characteristics come under the label of normality. However, as we know from everyday experience, there are in nearly every community, a few children, who are markedly different in some respect or the other from a vast majority of their peers. From a functional perspective, these children do not really belong to the general category of normal children - they are better labelled as **exceptional**.

One category of exceptional children are the gifted or talented, who possess highly developed capability of some kind -- intelligence, musical or artistic ability, manual/motor skills (often relating to sports), etc. Such children are also "misfits" when placed along with their peers, especially with respect to specific activities. It must be noted that a child who is exceptionally intelligent in terms of abstract and logical thinking might be quite average in terms of social development or in sports.

We will not consider gifted children in any more detail in this unit. Our focus will be on children who are exceptional in the negative sense of needing special care and attention because of some handicapping conditions like deafness, blindness, mental retardation, etc. --- conditions that prevent them from performing at an optimal level and thus make their performance and learning in certain areas far below the norm for their age. These handicapping conditions can interfere with specific areas (e.g. reading or writing) leaving the others (e.g. arithmetic, appreciation for music, etc.) essentially normal. We will also not consider here the severely disabled and multiply handicapped, because they are usually placed in special schools rather than regular schools.

Activity - 1

1. Do you have exceptional children in your class ? Are they gifted children or children with handicaps ? How do you react to both the kinds, and how do you cope with them? (This is a large question - but it will be useful to note down your thoughts before we begin.)

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

3.2 DISABLED CHILDREN IN REGULAR SCHOOLS

Children with disabilities is a cover-term for a wide range of problems faced by school-age children. It is estimated that approximately 2.6 million children in the age group of 4-25 years are disabled (NSSO 1986). Of these, 1.2 million are hearing disabled; 0.74 million speech handicapped; 0.53 million hearing handicapped, 0.12 million visusally handicapped and the rest are multiply handicapped, in that they have more than one kind of disability including orthopedic and other medical problems. Aside from these categories, there are others who are at risk for learning because of their socio-economic or cultural backgrounds, many of whom may have behavioural problems like aggression and withdrawal.

It must also be noted that disability, whatever kind it may be, is a continuum ranging from mild to profound. Often it is only the mild and moderately disabled children who find placement in regular schools. Teachers in regular schools can do a lot to help children with behavioural problems and those coming from different cultural background (with assistance from the school psychologist/counsellor, if one is available); others with disabilities like autism, cerebral palsy, hearing loss, require help from both regular classroom teachers and resource teachers or specialists.

Activity - 2

1. Does your school have any provision in terms of special counselling/teaching for the handicapped learners ?

Discuss your school's role in coping with handicapped children.

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

3.3 INTEGRATED EDUCATION : THE INDIAN CONTEXT

In 1974, The Government of India launched a centrally sponsored scheme of Integrated Education for the Disabled Children (IEDC) under the Department of Social Welfare, which was transferred to the Department of Education by the year 1982. The general feeling was that it is better to make full utilization of the scanty resources available for education by integrating as many children with disabilities as possible in regular schools by incorporating special units within regular schools. Such a setup was thought to provide better opportunities for the disabled children to interact with normal (non-disabled) peers. According to a 1985 UNESCO study, teachers in general schools were reported to have expressed confidence in managing children with special needs provided they are given additional input and organizational support (see NCERT document on PIED 1987).

By mid 80's, four national level institutions were set up by the Ministry of Welfare, Government of India, to serve the disabled population and to train specialist teachers. They are: **National Institute for the Hearing Handicapped (NIHH)**, Bombay; Secunderabad; **National Institute for the Visually Handicapped (NIVH)**, Dehra Dun and **National Institute for the Orthopedically Handicapped (NIOH)**, Calcutta. Each of these institutions have their own regional centres spread across the country. Currently, both diploma and degree level courses are offered at these institutions in addition to comprehensive assessment and therapeutic services. They also bring out periodic newsletters and prepare public education brochures.

It has been reported (Sharma 1991) that less than one percent of handicapped children enroll in normal schools at the elementary stage, whereas, there are over five lakh educable hearing handicapped children alone in the age range 5-14 years. In other words, a considerable proportion of disabled children have not benefitted from the Universal Primary Education (UPE), one of the goals of National Policy on Education (see NPE-1986). While formulating the NPE, the Government of India outlined the steps for ensuring equal educational opportunities for the handicapped on par with that of other children. However, the progress on the IEDC scheme has been reported to be slow. According to the NCERT document on PIED-1987, the reasons include: Lack of trained personnel; non-availability of teaching materials; absence of training programmes for appraising general teachers regarding special education needs of handicapped children; inadequate infrastructure for identification and assessment of special need; inadequate community and/or parent participation. There is an urgent need, therefore, for mainstream teachers to acquaint themselves with basic information about children with disabilities so that they can do their bit in ensuring both equality and quality in the education imparted to all children.

Check Your Progress - 1

1. Why do you think it is important to integrate children with disabilities into mainstream education?

.....
.....
.....
.....

2. The government has not been very successful in implementing the IED scheme. Why ?

.....
.....
.....
.....

3.4 SOME FACTS ABOUT SPEECH, LANGUAGE AND HEARING DISABILITIES

Speech and language disorders affect the way people talk and understand. These disorders may range from simple sound substitutions (e.g. lispings) to not being able to use speech and language at all. This distinction between speech and language is important because it has educational implications: most children with speech disorders do not have learning problems, whereas a majority of children with language disorders do.

Speech disorders

Some common speech disorders include: **Stuttering** — a condition in which the flow of speech is broken by abnormal stoppages (silent blocks) leading to repetitions or prolongation of sounds, syllables and words. In some cases unusual facial and body movements may accompany every effort to speak. **Articulation disorders** — difficulties with the way speech sounds are formed and strung together. The child may substitute one sound for another; omit the sound altogether or distort the pitch (too high, too low, pitch breaks, etc.); loudness (too loud or not loud enough) or quality (harsh, hoarse, nasal and breathy). More than one parameter of voice may be disordered in conditions like cleft lip and palate and cerebral palsy (a neuromuscular disorder affecting control of nerves and muscles that make voluntary movements difficult if not impossible). Pediatricians, Neurologists, E.N.T. surgeons and Dental surgeons will attend to the medical conditions associated with these disorders, whereas trained speech-language pathologists look into assessment and treatment of these problems. None of these disorders are associated with impaired intelligence; these children exhibit little, if any, learning, memory or attention problems.

In certain clinical types of cerebral palsy (such as spasticity or athetosis or ataxia in which the site of damage differs), the movement disorder might be so severe that the child's speech may be totally incomprehensible and s/he may not be able to read or write. With the exception of children with severe cerebral palsy, all the other children with the above mentioned speech disabilities should be admitted to schools and encouraged to receive regular speech therapy outside school hours.

Language disorders

These include **delayed language** characterised by marked slowness in the development of vocabulary and grammar for expressing and understanding a language. In some children, language development may be delayed despite the absence of any apparent physical disability. These children gradually overcome their problem and no specific intervention is

necessary. In most cases however, delayed language is one of the symptoms associated with congenital (by birth) or prelingual (acquired during early infancy) **hearing impairment, mental retardation and brain damage**. Severe psychological disturbance or emotional trauma (often associated with **autism**) can also delay normal acquisition and use of all or some aspects of both verbal and non-verbal language. Mental retardation accompanies many clinical conditions, one of the commonest being **Down's syndrome**, a chromosomal disorder characterized by general delay in development of both motor and language milestones. **Hyperactivity, lack of attention/ concentration, aggressive behaviour**, are all symptoms associated with brain damage incurred at birth or soon after birth. Children with any of these language disorders can be integrated into a normal school, provided that their disability is mild to moderate. Unlike children with speech disorders, these children will have learning problems and will need a great deal of attention, both from a specialist teacher and regular teacher. For instance, some of these children may also have chewing, sucking and swallowing problems, which can be controlled through special exercises.

It must be noted that not all kinds of **hearing disorders** can cause severe delay in the acquisition and use of language or in the attainment of education. There are four major types of hearing losses identified and diagnosed by Audiologists and E.N.T. doctors. Hearing impairment is classified as **conductive** when the sound is not conducted efficiently through the ear canal, the ear drum and the three tiny bones in the middle ear to the sense organ of hearing present in the inner ear. Conductive hearing loss reduces the loudness of the sound that is heard. Frequent colds, allergies, excessive wax, inflammation of the ear canal and/or middle ear may cause conductive hearing loss, but can be treated through medicine or minor surgery. **Sensorineural hearing loss** occurs when there is damage to the inner ear or to the auditory nerve that connects the ear to the brain. Hereditary causes, the aging process, birth defects, excessive use of certain drugs, exposure to loud noise are some of the causes of this type of hearing loss. A **mixed type** of hearing loss can result when, for instance, a child with a hereditary sensorineural loss develops ear infections. Finally, a **central type** of hearing loss occurs when the auditory centres of the brain are affected due to injury, disease, tumors, hereditary factors, etc. In these cases, loudness of the sound need not necessarily be affected, but understanding of speech will be. The language learning difficulties faced by children with conductive or mixed losses are usually temporary and not very serious to interfere with educational progress. Certain types of central auditory disorders need surgical intervention. The others especially those which are a result of hereditary factors are quite debilitating in that, even hearing aids are of little use to help the child process auditory input. The most common type of hearing loss among school age children is congenital or prelingual sensorineural hearing loss for which no medical or surgical cure is possible. After thorough audiological assessment by a trained audiologist, hearing aids (either body level, ear level or in-the-ear types) will have to be fitted by the audiologist (not a hearing aid dealer) and systematic auditory and speech training given before the child is admitted to a normal school.

Other Disorders

There are specific language disorders like **dyslexia** associated with difficulties in speech and reading. The term **dyslexia** is derived from both Latin and Greek (Latin origin, dis = difficult; legere = to read and Greek lexis = speech). Children with dyslexia have information encoding deficiency across both input (manifested as word blindness) and output modalities (impairment in speech or writing). Hence, treatment approaches are multisensory and include methods like alphabet method and word method (visual); phonic method (auditory); kinesthetic-tactile approaches and combined approaches. It is advisable that the school teacher collaborates with speech language pathologists or professionals or professionals trained in special education in helping these children overcome specific reading and writing problems.

Check Your Progress - 2

1. Write short notes on the following disabilities.
 - (i) Lispings
 - (ii) Stuttering
 - (iii) Cleft palate

- (iv) Cerebral palsy
- (v) Autism
- (vi) Down's syndrome
- (vii) Dyslexia

.....

.....

.....

.....

.....

.....

.....

.....

.....

2. Write the difference between conductive and sensorineural hearing impairment.

.....

.....

.....

.....

.....

3.5 THE ROLE OF REGULAR TEACHERS

It is not possible to specify the do's and don'ts to be followed in the management of the children with various disabilities discussed above. Therefore only general suggestions are made here. Interested teachers may seek more information by writing to the addresses mentioned at the end of this unit (see Appendix).

In the case of children with speech disorders, all that the teachers need to do is (1) to be patient while these children struggle to speak and to make sure that they get as many opportunities as their normal peers for expressing their ideas in the classroom or in taking part in sports outside the classroom communication. (2) If you have children with speech disabilities in your class who have not consulted a speech pathologist, you may advise the parents to approach the nearest speech pathologist in the city as soon as possible. They can ask for a directory of speech pathologists by writing to the Secretary, Indian Speech and Hearing Association, All India Institute of Speech and Hearing, Manasa Gangothri, Mysore-6. (3) it might be useful to talk to other (non-disabled) children in the class about the condition of speech disabled children so that they do not make fun of the disabled ones or intimidate them in any way. (4) Spastic Society of India which has many branches across the country has been set up to serve the needs of children with different clinical types of cerebral palsy. Spastic Society of Eastern India (SSEI) located in Calcutta brings out a journal called Deepshika, envisaged to serve as a forum for exchanging information, ideas, teaching strategies, views and new thoughts on the disabled population.

In the case of children with language disorders, what the teacher can do differs from the nature of the disorder much more than with speech disordered children. For children diagnosed to have dyslexia or some specific learning disabilities, where the primary problem pertains to reading and writing, teachers should consider involving one pupil without any disabilities to team up with each disabled child for helping the latter in taking class notes (e.g., by using a carbon paper) and in helping with home assignments.

For information about managing a child with hearing impairment, a checklist can be used to ensure that the hearing aid worn by the child is indeed in working condition. (See Vasanta, 1989). In addition, when you have a child with hearing impairment in your classroom, make sure that (1) s/he is seated in the front bench from where your face is easily observable (2) there is sufficient light on your face (3) try not to speak while your back is turned to the child. i.e., while you are facing the blackboard (4) request the other children to be quiet when you are addressing a child with hearing impairment because the microphone of the hearing aids amplify not only your speech but the ambient noise levels in and outside the classroom (5) consult an audiologist regarding classroom amplification systems and for tips on teaching lipreading skills to your hearing-disabled pupils.

One general suggestion is that if you have a sizable number of handicapped children in your school, try to help form parent support groups. Meet these parents more often than the parents of normal children.

Check Your Progress - 3

1. a. How often do you get children with disabilities in your class ?

.....
.....

b. What is the response of the other children to their disabled classmates ?

.....
.....
.....

c. How do you encourage children without disabilities to help their disabled friends?

.....
.....
.....
.....
.....

3.6 RETHINKING DISABILITY AND CURRICULUM

There is no universal definition of "disability". The meanings associated with the term "disability" are not the same in all cultures or for that matter, in the same culture. They are historically specific and are socially constructed (see Findlay 1994 for an elaborate discussion of this point).

The dominant views about "disability" however are, that it is a medical issue; that disability is a personal tragedy; the management of disabled children's "needs" is specialized and therefore lies outside the mainstream and that their educational need ought to be evaluated differently from those of their "able-bodied" counterparts. This is not true of all groups of disabled children. Even if it were to be true, the national resources allocated for education are so limited that we are in no position to take care of the educational needs of disabled persons independently of that of able-bodied children. The professionals in the field of special education have begun to question the medicalization of the lifestyles of people with disabilities and emphasised the need to protect the rights of the disabled and be conscious about the social oppression they are subjected to both inside and outside the school system. The meaning of disability then is inextricably tied up with the following questions: (1) For whom is the education designed ? (2) Which group of disabled children can be placed in regular schools ? and who should be confined to special schools ? (3) What factors limit their access to the curriculum ? (4) Which particular areas of the curriculum ought to be

modified to maximize its access to children with disabilities (5) What values and expectations are called upon to establish meaningful goals for education ?

Answers to these questions, especially those pertaining to the curriculum are neither simple nor straight-forward. But a discussion on the concept of **hemispheric specialization** and its educational implications might help interested readers to rethink school education in general, and curriculum in particular. This is essential, because, meeting the special needs in ordinary schools involves a radical rethinking on the part of teachers as to what the school can offer all children (Webster and McConnell 1987).

Nobel Laureate Roger Sperry stated (cited in Bogen 1975) that there are two modes of thinking: verbal and non-verbal, represented separately in the left and right hemispheres of the brain respectively, and that our educational system (he was obviously referring to the American system) as well as science in general, tends to neglect the non-verbal form of intellect. What it amounts to is that modern society discriminates against the right hemisphere !

The above statement should be viewed against the commonly accepted notion that the type of cognition attributed to the right hemisphere (RH henceforth) has been termed **appositional** in that, RH is good at processing visuo-spatial tasks; it is good in retrieval or recognition of shapes, if they are not readily nameable; it has greater capacity (over left hemisphere or LH) for art appreciation, musical recognition and production, recognition of part-whole relationships and processing of time-independent stimulus configurations. In contrast, the cognitive style of left hemisphere (LH) has been termed **propositional**. Specifically, LH is said to be specialized for verbal tasks: speaking; reading, writing, calculating, etc. It processes information in a sequential fashion, i.e., good at processing time ordered stimulus configurations.

"Right-hemispheric illiteracy" is the rule in most modern societies. Thus dyslexic children who can draw much better than the "so called" normal children thus exhibiting superior visuo-perceptual or visuo-motor skills are still labelled "learning disabled". It must be noted that the education system on the whole (in most societies), places greater emphasis on **propositionality** at the expense of **appositionality**. Think how many of our schools consider art or music departments as essential for their school infrastructure ? It should be noted further that certain pedagogic practices tend to aggravate and prolong this lopsided (or perhaps we should say, one-sided) education. The point is that we have to search for "other-than left hemisphere" values in our rethinking of the education system. Bogen rightly argues that greater right-hemisphere participation would involve not only redesigning of the curricula, but also changing pedagogic practices -- more laboratory and field experience at the expense of lectures and seminars. All this calls into question the relevance of IQ tests and their ability to predict "life success". The aim should be making curricula as broad as possible.

In Arthur Jensen's words (cited in Bogen 1975): "Future solutions will take the form not so much of attempting to minimize differences in scholastic aptitudes and motivation, but of creating a greater diversity of curricula, instructional methods and educational goals and values that will make it possible for children ranging over a wider spectrum of abilities to genuinely benefit from their years in school."

Considerable amount of neurolinguistic research has been done since Bogen's article. However, little if any attempt has been made to use those findings to redesign school curricula or rethink education. I think school teachers can play a great rôle in bringing about heterogeneity in the school curriculum to promote bihemispheric participation, which is beneficial not only to the normal children, but also to the disabled as well. Readers interested in obtaining more information on children with specific disabilities may want to write to the addresses provided in the Appendix.

Check Your Progress - 4

1. List the different type of cognition attributed to the right hemisphere and the left hemisphere of the brain.

Right Hemisphere

Left Hemisphere

2. a. According to section 3.6 what is lacking in the curriculum in the most schools ?
- b. What is the solution offered ?
- c. Do you agree with this solution ?

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

3.7 LET US SUM UP

In this unit we tried to make you aware of

- the nature of disabilities that can affect learning, which include speech, language and hearing disabilities.
- the reasons for integrating special learning into the mainstream of education.
- some of the simple procedures that will help learners with special needs.
- the cultural factors which play an important role in excluding several groups of learners into the current educational set up.

3.8 KEY WORDS

autism	a severe mental illness that effects children and makes them unable to respond to other people
audiologist	an individual involved in the diagnosis, assessment, management, education, or rehabilitation of the hearing - impaired.
athetosis	a form of involuntary movement which is repetitive, slow, and usually associated with decreased tone in muscle movement.
ataxia	unsteadiness, lack of coordination or disorganisation of movements in the absense of paralysis
bilhemispheric	pertaining to both the right and the left hemispheres of the brain
cerebral palsy	an illness caused by damage to a baby's brain before it is born, which makes its limbs and muscles permanently weak
cleft palate	narrow opening along the roof of the mouth which makes it difficult for people to speak properly
congenital	present at birth
chromosomal	in any cell, a structure that contains DNA encoded genetic information inherited from the parents

cleft lip	a congenital defect consisting of one or more clefts in the upper lip
curriculum	includes the goals, content, implementation and evaluation of an educational system
dyslexia	difficulty with reading because of a slight disorder of the brain.
Down's syndrome	genetic defect resulting from having three copies of chromosome 21 rather than the normal two copies. This leads to mental retardation in children
hyperactivity	abnormally increased activity in children
lisp	if someone has a lisp, they pronounce the sounds 's' and 'z' as if they were 'th'. For instance, they say 'thing' instead of 'sing'
neurologist	a doctor who treats diseases of the nervous system
orthopedic	medical term — pertaining to bones
pitch	the degree of highness or lowness of a sound
paediatrician	a specialist doctor in treating childrens' diseases
prelingual	before the onset of language
pedagogic	pertaining to the teaching-learning process
spasticity	a disability which makes it difficult for people to control their muscles, especially their arm and leg muscles. Many spastics are also brain damaged
therapeutic	to treat a disease or to improve a person's health

3.9 SUGGESTED READING

- Bogen, J.E. 1975. Some educational aspects of hemispheric specialization. *U.C.L.A. Educator* 17: 24-32.
- Findlay, B. 1994. Quality and equality in education: The denial of disability culture. In P.Ribbins and E.Burridge (eds.), *Improving Education: Promoting quality*. London : Casell
- Project *Integrated Education for the Disabled (PIED): a Document- 1987*. New Delhi: NCERT.
- Richardson, S.O. 1992. Historical perspectives on Dyslexia. *Journal of Learning Disabilities*. 25:1, 40-47.
- Sharma, S.R. 1991. *National Policy on Education: Education for an Enlightened and Humane society*. Vol. I. New Delhi: Anmol publications.
- Vasanta, Duggirala. 1989. Helping the hearing impaired. *Teacher Plus*. July-Aug : 5-6
- Webster, A and Wood, D. 1987. *Children with Difficulties*. London: Cassell.

3.10 ANSWERS

Check Your Progress - 1

Read 3.3 for the answers.

Check Your Progress - 2

Read 3.4 for the answers. You may also look at the key words and a medical dictionary

Check Your Progress - 4

Read sections 3.6 before answering the questions

Appendix
Sources of Additional information

For public education brochures and other information, you may write to the following Institutions;

1. Director
A.Y.J.National Institute for the Hearing Handicapped
K.C. Road, Bandra Reclamation
Bombay 400 050.
2. Director
National Institute for the Mentally Handicapped
Manovikasa Nagar, Bowenpally P.O.
Secunderabad 500 011.
3. Director
National Institute for the Orthopedically Handicapped
B.T.Road
Calcutta 700 090.
4. Director
National Institute for the Visually Handicapped
116, Rajpur road
Dehra Dun 248 001.
5. Director
All India Institute of Speech and Hearing
Manasa Gangothi
Mysore 570 006.
6. Central Resource Centre (PIED)
National Council of Educational Research and Training
Sri Aurobindo Marg
New Delhi - 110 016.