INTRODUCTION TO NEURO DEVELOPMENT DISABILITIES

SECD- 03

MADHYA PRADESH BHOJ (OPEN) UNIVERSITY

INTRODUCTION TO NEURO DEVELOPMENTAL DISABILITIES

B.Ed. Spl. Ed

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MADHYA PRADESH BHOJ (OPEN) UNIVERSITY,
Bhopal

Bachelor of Special Education

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A Collaborative Programme of

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INTRODUCTION TO NEURO DEVELOPMENTAL DISABILITIES

BLOCK

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LEARNING DISABILITY: NATURE, NEEDS AND INTERVENTION

BLOCK – 1 : LEARNING DISABILITY: NATURE, NEEDS AND INTERVENTION

INTRODUCTION

Education enables children to adapt themselves to the society and their culture. The school curricula are set to fulfill this objective for normal children. Education of the disabled children requires special attention. To help us to deal with the question of who these children are we need first to understand them.

The terms *'impaired'* *'disabled'* and *'handicapped'* have often been used interchangeably. But they have specific meanings and differ conceptually. The first Unit makes an attempt to clarify these. There are various types of disabilities such as visual, hearing, mental, orthopedic, learning and other each of which may be incidental or prevalent in a community. The classification of disabilities, their incidence and prevalence and factors that influence their occurrence as well as their percentage in total population are dealt in Unit 2 and Unit 3. The fourth Unit discusses about the various disabling conditions that affect children and their behavior. This accurate perception of the disabled children will help in dealing with them and transfer knowledge effectively.

UNIT – 1 : DEFINITION, TYPES AND CHARACTERISTICS

STRUCTURE

- **Introduction**
- **Objectives**
- **Definitions**
- **Summary**
- **Revision**
- **Assignment/Activity**
- **Points For Discussion And Clarification**
- **References / Further Readings**

INTRODUCTION

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

Since difficulties with reading, writing and/or math are recognizable problems during the school years, the signs and symptoms of learning disabilities are most often diagnosed during that time. However, some individuals do not receive an evaluation until they are in post-secondary education or adults in the workforce. Other individuals with learning

disabilities may never receive an evaluation and go through life, never knowing why they have difficulties with academics and why they may be having problems in their jobs or in relationships with family and friends.

Kirk (1962), defined learning disability "as a retardation, disorder or delayed development in one or more of the processes of speech, language, reading, spelling, writing or arithmetic resulting from a possible cerebral dysfunction and/or emotional or behavioural disturbance and not from mental retardation, sensory deprivation, or cultural or instructional factors". en nearly one-third to be scholastically backward; a majority of them had specific learning disabilities.

The U.S. National Joint Committee on Learning Disabilities (NJCLD, 1988) defined learning disabilities as follows: "Learning disabilities is a general term that refers to a heterogeneous group of disorders manifested by significant difficulties in the acquisition and use of listening, speaking, reading, writing, reasoning, or mathematical abilities. These disorders are intrinsic to the individual, presumed to be due to central nervous system dysfunction and may occur across the life span. Problems in self-regulatory behaviours, social perception and social interaction may exist with learning disabilities but do not, by themselves, constitute a learning disability. Although learning disabilities may occur concomitantly with other disabilities (e.g., sensory impairment, mental retardation, serious emotional disturbance), or with extrinsic influences (such as cultural differences, insufficient or inappropriate instruction),they are not the result of those conditions or influences" (NJCLD, 1988). The 1999 Federal Register that contains the regulations for identifying and defining students with specific learning disabilities under US legislation outlined criteria that should be considered in identifying students with this disorder. The disabi lity must result from a deficit in one or more basic learning behaviours such as memory, reasoning, organization and perception; must manifest itself in the form of one or more significant learning difficulties in one or more of seven areas oral expression, listening comprehension, written expression, basic reading skills, reading

comprehension, mathematics calculation and mathematical reasoning-compared with other children of the same age; must be evidenced by a severe discrepancy between intellectual ability and academic achievement in at least one of these seven areas; and must not be caused by mental retardation, hearing or vision impairment, motor impairment, emotional and behavioural disorder, or environmental disadvantage (U.S. Department of Education, 1999).

Another method of defining and characterizing learning disabilities is through the DSM -IV which outlines three major types of learning disorders: reading disorder, mathematics disorder and disorders of written expression, as opposed to offering one general definition. However, the descriptions of these disorders in the DSM-IV share one important similarity with that found in the Federal Register. Both stipulate that there must be a discrepancy between achievement in the area in question and intelligence. Under U.S. federal law, public schools consider a child to be learning disabled if his or her level of academic achievement is two or more years below the standard for age and IQ level. According to Bender (1995), discrepancy criteria are used to indicate a substantial difference between intelligence, as measured on standardized IQ assessments and achievement in a number of academic subject areas. Several researchers have questioned the overall validity and usefulness of the ability achievement discrepancy concept. On the basis of their research, Stanovich and Siegel (1994), have concluded that if there is a special group of children with reading disabilities who are behaviourally cognitively, genetically, or neurologically different, it is becoming increasingly unlikely that they can be easily identified by using IQ discrepancy as a proxy for the genetic and neurological differences themselves. Learning disabilities are intrinsic to the individual and the basis of the disorders is presumed to be due to central nervous system dysfunction. For the individual with learning disabilities, evidence of central nervous system dysfunction may or may not be elicited during the course of a medical-neurological examination. The critical elements in the diagnosis of learning disabilities are elicited during psychological, educational and/or language assessments. The failure to learn or to attain curricular expectations may occur for diverse reasons. Learning

disabilities have their basis in inherently altered processes of acquiring and using information. It is essential to understand this notion if one is to appreciate the resultant interaction between the learner and the learning environments. An understanding of this interaction facilitates the development of effective service delivery models and adaptive curriculum. This also leads to a clearer understanding of the ways in which individuals with learning disabilities may interact in a life-long social and cultural milieu.

A learning disability, or specific developmental disorder, is a disorder that inhibits or interferes with the skills of learning. Learning disabilities are life disabilities; they are seen in children as well as adults. The impairment may be so subtle that it may go undetected throughout the life. These disabilities create a gap between the true potential and day-to-day productivity and performance. The same learning disabilities that interfere with reading, writing and arithmetic interfere with cricket, football, getting dressed, keeping
the room tidy, i.e., with every aspect of life. If an individual does not benefit from a regular education programme and is not socially disadvantaged, intellectually limited or pedagogically deprived and shows no evidence for hard sign neurophysiological dysfunction, that individual is characterized as learning disabled. The child who has difficulty communicating either expressively or receptively and cannot read, write or do mathematics within the criterion range as established per school norms is learning disabled.

Learning disabilities refers to a disorder that interferes with one's ability to store, process or produce information. Such disorders may be manifested by specific delays in early development and/or difficulties in any of the following areas: attention, memory, reasoning, coordination, communication, reading, writing, spelling, calculation, social competence and emotional maturation. Learning disabilities are intrinsic to the individual and may affect learning and behaviour in any individual, including those with potentially average, average, or above average intelligence. Learning disabilities may arise from genetic variation, bio-

chemical factors, events in the pre- to post-natal period, or any other subsequent events resulting in neurological impairment.

The Fourth Edition Text Revision of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR, a handbook that mental health professionals use to diagnose mental disorders) uses the term learning disorders, formerly called academic skills disorders and defines this as cognitive difficulties arising from brain dysfunction. The use of the term learning disability is much more widely recognized than the term learning disorder, perhaps because learning disability terminology has been used more often
in clinical, research, educational and political circles than has DSM terminology. This paper will use learning disability terminology and learning disability research and statements about learning disabilities may be assumed to apply directly to DSM-IV learning disorders.

Prevalence/Epidemiological Studies
The prevalence of learning disabilities varies considerably based on the criteria used, but estimates are in the range of 5-10 per cent (Pennington, 1991; United States Department of Education, 1995). Estimates by the U.S. Department of Education set learning disability prevalence at about 5-6 per cent based on legal definitions. On the basis of a survey conducted in rural Perimpilavu, a city in South India, Suresh and Sebastian (2003) concluded that specific learning disability was observed in at least 7-8 per cent of the general population. Kapur (1993), in a study on urban primary school children from low socio-economic status found 17 per cent of them had scholastic backwardness. Rozario (1991), found in a sample of 110, nine-year-old childr An estimated 2-5 per cent, about half of all learning disabled identified by U.S. schools have reading disabilities (dyslexia), the most common of the learning disabilities (Kronenberger & Meyer, 2001). Prevalence studies find rates ranging between 2 and 8 percent (Sadock & Sadock, 2003). There are three to four males for every female with reading disabilities (Spafford & Grosser, 1996). About 1 per cent of school age children have mathematics disabilities (dyscalculia), which is approximately one of every five children with learning disabilities. Precise prevalence rates are difficult to ascertain because studies on children have

lumped several disabilities together rather than separating them into individual disabilities. Mathematics disabilities may occur with greater frequency in females (Sadock & Sadock, 2003). About 4 per cent of school age children have writing disabilities (dysgraphia), the prevalence of it alone has not been studied. There are three males for every female with writing disabilities (Sadock & Sadock, 2003).

OBJECTIVES

Learning disabilities should not be confused with learning problems which are primarily the result of visual, hearing, or motor handicaps; of mental retardation; of emotional disturbance; or of environmental, cultural or economic disadvantages.

Generally speaking, people with learning disabilities are of average or above average intelligence. There often appears to be a gap between the individual's potential and actual achievement. This is why learning disabilities are referred to as "hidden disabilities": the person looks perfectly "normal" and seems to be a very bright and intelligent person, yet may be unable to demonstrate the skill level expected from someone of a similar age.

A learning disability cannot be cured or fixed; it is a lifelong challenge. However, with appropriate support and intervention, people with learning disabilities can achieve success in school, at work, in relationships, and in the community.

In Federal law, under the Individuals with Disabilities Education Act (IDEA), the term is "specific learning disability," one of 13 categories of disability under that law.

DEFINITION

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disabilities can achieve success in school, at work, in relationships, and in the community.

In Federal law, under the Individuals with Disabilities Education Act (IDEA), the term is "specific learning disability," one of 13 categories of disability under that law. "Learning Disabilities" is an "umbrella" term describing a number of other, more specific learning disabilities, such as dyslexia and dysgraphia. Find the signs and symptoms of each, plus strategies to help below.

Specific Learning Disabilities

Auditory Processing Disorder (APD)

Also known as Central Auditory Processing Disorder, this is a condition that adversely affects how sound that travels unimpeded through the ear is processed or interpreted by the brain. Individuals with APD do not recognize subtle differences between sounds in words, even when the

sounds are loud and clear enough to be heard. They can also find it difficult to tell where sounds are coming from, to make sense of the order of sounds, or to block out competing background noises.
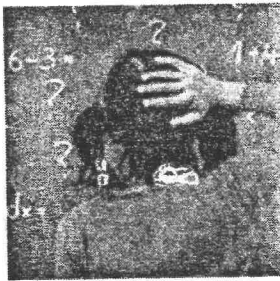
Dyscalculia

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

Dysgraphia

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

Dyslexia

A specific learning disability that affects reading and related language-based processing skills. The severity can differ in each individual but can affect reading fluency, decoding, reading comprehension, recall, writing, spelling, and sometimes speech and can exist along with other related

disorders. Dyslexia is sometimes referred to as a Language-Based Learning Disability.

Language Processing Disorder

A specific type of Auditory Processing Disorder (APD) in which there is difficulty attaching meaning to sound groups that form words, sentences and stories. While an APD affects the interpretation of all sounds coming into the brain, a Language Processing Disorder (LPD) relates only to the processing of language. LPD can affect expressive language and/or receptive language.

Non-Verbal Learning Disabilities

A disorder which is usually characterized by a significant discrepancy between higher verbal skills and weaker motor, visual-spatial and social skills. Typically, an individual with NLD (or NVLD) has trouble interpreting nonverbal cues like facial expressions or body language, and may have poor coordination.

Learn more about Non-Verbal Learning Disabilities

Visual Perceptual/Visual Motor Deficit

A disorder that affects the understanding of information that a person sees, or the ability to draw or copy. A characteristic seen in people with learning disabilities such as Dysgraphia or Non-verbal LD, it can result in missing subtle differences in shapes or printed letters, losing place frequently, struggles with cutting, holding pencil too tightly, or poor eye/hand coordination.

UNIT SUMMARY

Learning disabilities are disorders of the central nervous system which significantly impact functioning in one or more area of learning. According to the Diagnostic and Statistical Manual IV (DSM-IV), learning disabilities can exist as disorders of *reading, math,* or *written expression.*

Learning disabilities result in significantly lower levels of achievement in one or more of the above-mentioned academic areas when compared to one's overall cognitive abilities. For example, let's say that Sam is a third grader. Sam has an average overall IQ, but struggles to read at his grade level. He does just fine with his math, writing, and other assignments, really anything that doesn't require reading. He struggles to read books that first graders are reading and when he is finished reading he really can't tell you what the story was about. Now, you can't assume right off the bat that Sam has a learning disability, because his reading troubles could be attributed to a variety of other factors, but based on the fact that his reading abilities seem to be significantly lower than his overall abilities, it is certainly worthy of further investigation.

IQ tests and achievement tests are the tools most often used to diagnose learning disabilities. IQ tests give an indication of one's overall cognitive abilities, while achievement tests measure abilities in specific academic areas like reading, writing, and math. By making comparisons between the overall abilities and academic abilities, clinicians can identify which academic areas are significantly impacted, and also what specific aspect of reading, writing, or math is impaired. It isn't uncommon for someone with a learning disability to have an overall average or above average level of intelligence. So, using Sam as an example his IQ test scores might show that his overall abilities are average or above average, but his reading achievement scores will likely show that Sam functions well below what someone with his IQ typically functions.

The DSM - IV indicates that approximately 5% of children in U.S. in public schools have a learning disability. Since the nature of learning disabilities directly impacts academic functioning, learning disabilities are often first identified and diagnosed in school-age children, but the impact of learning disabilities does not end with childhood. It is important that Sam's reading disability is properly identified and accommodated early on

in his life so that he is able to keep up with his peers and minimize the impact on his education.

1.7   CHECK YOUR PROGRESS

A) Fill in the Blanks

1. Inability   to   perform   functional   activities   is   called
   _____ .

2. _____ is denoted by anomalies on organ, tissues, or functioning of body systems.

3. Limitations is fulfilling one's age appropriate socio-cultural role is known as _____ .

4. Where   as   _____ situation   specific, _____ is an aspect of life.

B) Match each of the disabilities with ensuing handicaps

Disability	Handicap
a) Loss of sight	i) Mobility
b) loss of hearing	ii) employment
c) loss of arms	iii) schooling
d) loss of legs	iv) communication
e) mental deficiency	v) self care

A) Fill in the Blanks

   1. Disability

   2. Impairment

   3. Handicap

   4. Handicap, disability

B) Match

   A - I

   B - iv

   C - v

   D - ii

   E - iii

1.8 ASSIGNMENT/ACTIVITY

1. Define the term 'impairment' and 'handicap' and provide live examples of two such children from your locality to describe each term.

1.9 POINTS FOR DISCUSSION AND CLARIFICATION

After going through this Unit you might like to have further discussion on some points and clarification on others

1.9.1 Points for discussion

1.9.2 Points for clarification

1.10   FURTHER READINGS

1. Ashman, A & Elkins, J. (Eds) (1994) Educating children with special needs, Prentice Hall, New York.

2. Hallahan, D.P. & Kauffman, J.M. (1991) Exceptional children: Introduction to special education, Allyn & Bacon, Boston.

UNIT – 2 : TOOLS AND AREAS OF ASSESSMENT INTRODUCTION

STRUCTURE

- Introduction
- Objectives
- Definitions
- Summary
- Revision
- Assignment/Activity
- Points For Discussion And Clarification
- References / Further Readings

INTRODUCTION

The purpose of this chapter is to present the various assessment options currently in use with children who have learning disabilities, in the context of the information that has already been presented in the case-study reports, the history, and the perspectives on learning disabilities. Frequent references will be made to the case-study reports and the various perspectives on learning disabilities discussed in Chapter 1, and the individualized educational plans (IEPs) in the Appendix. Therefore, this chapter on assessment is intended to provide a gestalt experience in which your understanding of the field of learning disabilities comes together and you perceive the diverse perspectives and assessment procedures as a meaningful whole. Also, it may be useful to reexamine the information in the earlier chapters as you read.

In special education, assessment is mandated for several reasons. First of all, assessment was historically seen as one method of protecting the interests of the child (Commission for Excellence in Special Education, 2001; NJCLD, 2005). For example, in earlier years in school systems that had classes for students with mental retardation, if a particular child

became disruptive and did not complete the homework assignment, the teacher may have wanted to remove that child from the class. One convenient way to accomplish this was to ship the child out to a special education class, even though the child may not have been retarded. Intelligence testing, conducted on an individual basis, was intended to prevent this type of disservice to the child. Second, there is a need in the schools to identify children who need help earlier (Fuchs & Fuchs, 2006). Many children occasionally fail a semester or grade, but not every child who fails is disabled (Commission, 2001). Failure can occur for a number of other reasons, ranging from disruptions at home to incomplete homework assignments. Clearly, the schools need some mechanism by which to screen children in order to decide which children demonstrate failure resulting from a learning disability. Therefore, a major reason for individualized assessment is the need to document the eligibility of a particular child for a particular type of special educational service provided by the school. Another reason for assessment is the need to document the actual levels of performance on various classroom tasks in order to provide an individualized educational plan (IEP) (Commission, 2001). This need led to the recent emphasis on curriculum-based assessment. Much of the recent research in assessment has been directed toward assessment for instruction (Bryant, 1999; Jones, 2001), and almost all this research has demonstrated the effectiveness of periodic assessments conducted by the teacher on a weekly, biweekly, or daily basis (Fuchs & Fuchs, 2005; Jones, 2001). Theorists have argued that special education assessment, by virtue of being totally individualized, should compare a child's performance with a stated list of criteria or behavioral objectives that the child must master, rather than an arbitrary score derived from a norm group of children on a particular test (NJCLD, 2005). Consequently, concepts such as criterion-referenced testing, task analysis, curriculum-based assessment, and responsiveness to instruction have received increasing research emphasis. However, prior to discussion of these innovations, it is necessary to understand the use of psychometric assessment in identification of students with learning disabilities.

A functional assessment is an approach to figuring out why your child acts a certain way. It uses a variety of techniques to understand what's behind inappropriate behaviors. This includes looking at non-

academic factors that might be contributing to your child's frustration with learning.

Knowing what's behind inappropriate behavior can help you and the school find ways to change the behavior. The basic idea behind this approach is that your child's behavior serves a purpose. Whether he's aware of it or not, your child acts a certain way to get to a desired outcome or goal.

For example, perhaps your child has a hard time showing his work on math problems. In math class, he gets angry, crumples up the paper and is disruptive. He's sent to the principal's office.

The behavior isn't appropriate, but it served its purpose. Your child managed to avoid doing the work that was frustrating him. He may not know that was his goal, but he found a way to deal with the math that was causing him stress.

A key part of a functional assessment is figuring out what triggers certain behaviors in your child at home, in school and with friends. Sometimes parents and teachers assume they know what's causing a child's behavior because they've seen other children do similar things. But it's important to remember that the causes for the same behavior can vary widely among children.

Functional Assessment vs. Comprehensive Evaluation

A functional assessment has a narrower focus than a comprehensive evaluation. It focuses on the why, how, where, when and what of your child's behavior. A comprehensive evaluation is a process that's used to see if your child is eligible for special education services. It looks at all aspects of your child's learning. If behavior is a concern, a functional assessment may be part of the comprehensive evaluation process.

The Functional Assessment Team

Assessment is a team effort. Each team member sees your child from a different perspective. Everyone works together to figure out what's going on with your child's behavior.

The assessment team varies from school to school. It typically includes a person with specialized training, such as a school psychologist or behavior specialist. That professional helps to gather information. She interviews people who know and work with your child. She will also speak with your child and do some screenings or assessments.

A functional assessment team might also include:
- General education teachers
- Special education teachers
- Professionals who work with your child (counselors and speech therapists, for example)
- School administrators
- Parents and caregivers
- Your child

Although they're not part of the team, your child's peers can also shed light on your child's behavior.

The Steps of a Functional Assessment

During a functional assessment, the team gathers information and uses it to create a plan to help your child behave in more appropriate ways. Here are the steps the team takes.

Step #1: Defining the inappropriate behavior.

Using vague words to describe your child's behavior can make it harder to gather the best information. Saying that your child is "disruptive" doesn't give enough information. And it could mean different things to different people.

Instead, it's important to describe the behavior in an objective, specific way. For example, you or a teacher might say that your child "rips up, throws work papers and is argumentative when asked to show work in math class."

Step #2: Collecting, comparing and analyzing information.

This is several steps rolled into one. Team members work to pull together information from your child's records, interviews and questionnaires. Their goal is to answer questions like:
- Where is this behavior happening?
- Where is it not happening?
- How often is the behavior occurring?
- Who is around when it occurs?
- What tends to happen right before and right after the behavior?
- What is a more acceptable behavior that can be used as a replacement?

An ABC chart is a tool that's frequently used in this step. A stands for Antecedent (what happens before), B is for Behavior (the action or reaction), and C is for Consequence (what happens after).

Your child can help provide this information, too. Only he can tell you how he feels in these situations. Asking him to try to keep track of what he is feeling—and when—could help the team.

Step #3: Hypothesizing reasons for the behavior.

A hypothesis is a best guess based on the information you have. The team works together to figure out what your child's behavior is telling them. What does he get out of ripping up his paper and being disruptive? It's the team's job to figure out what he is escaping, avoiding or getting from the behavior.

Step #4: Developing a plan.

Once the team has an idea of the reasons behind your child's inappropriate behavior, the team works closely with the behavior specialist or psychologist to find ways to see if the hypothesis is right. This means changing something in the environment to see if it changes the behavior.

To do this, they create a behavior intervention plan (BIP). A BIP is a plan that's designed to teach and reward positive behaviors. This can help prevent or stop problem behaviors in school. For example, it might be helpful to see how your child acts when he's asked to explain the steps of a math problem out loud—but not in front of the whole class. Or he could show his work on some of the problems but not all of them. Suggestions in the plan may include:

- Changes to the physical environment
- Changes to the way information is taught or presented
- Changes to your child's routine or events that happen before the inappropriate behavior
- Changes to the consequences for a behavior
- Teaching different, more appropriate behaviors that serve the same purpose (such as asking for help or taking a break when frustrated with math)

Before putting a plan into place, the team has to make sure your child understands the expectations. They have to be sure he can control the inappropriate behavior and is motivated to change. This is where information from a comprehensive evaluation is helpful.

The Role of Parents in a Functional Assessment

Knowing that your child's behavior is causing problems can bring up many feelings. But the team is trying to work together to find solutions—not to place blame. Tell the team what you're seeing at home. This is an important piece of this process. It can show the similarities and differences between your child at home and at school. You can keep track of your child's behavior using an ABC approach or by keeping a journal. Taking notes can make it easier to see patterns in your child's behavior.

A functional assessment may not provide an immediate solution to your child's behavior issues. But it can give a more complete picture of your child's struggles. Then you and the school can work together to take the next steps to help your child.

OBJECTIVES

As demonstrated in the discussion on definitions, and the recent passage of IDEA 2004, determining whether or not a child has a learning disability is a task about which there is little consensus at present (Commission, 2001; Gersten & Dimino, 2006; NJCLD, 2005). Consequently it is difficult to report on the best method to identify children or adolescents with learning disabilities. Since substantial change in how students' learning disabilities are documented can be expected in coming years, the most appropriate approach meanwhile should include understanding both the new eligibility procedures as well as the more recently implemented eligibility procedures for documentation of a learning disability. At present, new teachers in the field will probably be exposed to both more traditional eligibility procedures for documenting a learning disability as well as the more recently developed response-to-intervention procedures. In the sections below, the text will present the more traditional eligibility assessment procedures first, as listed in Figure 5.1, and subsequently a discussion of response-to-intervention procedures.

DEFINITIONS

FIGURE 5.1   Assessment for Eligibility

COMPONENTS OF LD DEFINITION	COMMON ASSESSMENTS
I. Psychological processing problem	
IQ assessment	WISC-III
(Subtest scatter/verbal)	Stanford-Binet
Performance deficit/subtest regrouping	Woodcock-Johnson
	Kaufman Assessment Battery for Children (K-ABC)
Visual-perception/visual-motor	Bender Gestalt
	Woodcock-Johnson
	WISC-III
Audi...; perception/language	Test of Language Development
	Woodcock-Johnson
	WISC-III
II. Discrepancy	
Intraindividual differences	Woodcock-Johnson
	WISC-III
Ability-achievement discrepancy	WISC-III
	Woodcock-Johnson
	Peabody Individual Achievement Test– Revised (PIATr)
	Test of Written Language
	K-ABC
III. Exclusionary clause	
MR	IQ tests
Behavioral disorders	Class observations
	Teacher ratings of behavior
	Sociometric ratings
Mental disability	Physician's examination
Cultural/environmental/economic	Examination of school records
	History of speech improvements

Psychoeducational Team Assessment Report In most cases involving diagnosis of a learning disability, a team of specialists is involved. This team may include a school psychologist, special education and general education teachers, school administrators, the child's parents, medical practitioners, and the student. The report in Interest Box 5.4 summarizes the types of information that the psychoeducational team might collect. The psychoeducational team report includes a number of examples of the

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eligibility arguments based on the developmental-imbalances perspective. For example, the neurologist's report indicated that scores on a visual test were lower than would be expected for a child of this age. This led that professional to the conclusion that this child might have a learning disability. However, the psychologist used a different visual-motor assessment and concluded that there was no evidence of a visual-perceptual problem. The educational consultant's report was in agreement with the interpretation of the neurologist, in that there seemed to be evidence of a visual-perceptual problem and thus of a learning disability. Note that the summary for the entire team specifically highlighted the contradictory evidence on the presence or absence of a visual-perceptual problem. Finally, the educational consultants discussed the discrepancy between IQ and achievement in two areas. Educational Consultant's Evaluation Often, when a parent and a school district disagree concerning the diagnosis of learning disabilities, a private educational consultant will assess the child—or, in some cases, review assessment data—and render a decision concerning the child's eligibility for services. The report in Interest Box 5.5 represents the type of report an educational consultant might present. As you can see from this report, the educational consultant has chosen to emphasize the developmental-imbalances perspective, by demonstrating a developmental imbalance between Adam's skill in hearing information compared to visual input. This is another example of the developmental imbalances eligibility argument that was discussed earlier in this chapter. Also, notice that the educational consultant documented a discrepancy between IQ and achievement as a major factor in the diagnosis of learning disability. Finally, you may wish to note the relative lack of educational suggestions presented in this report. Beyond the suggestions for placement and some work on writing skills, there is very little useful information in this report that could assist in planning educational activities for Adam.

Innovative Assessment Practices Over the last decade, there has been an effort within education to move toward assessments that have more bearing on how children actually perform various educational tasks (Bryant, 1999; Commission, 2001; Fuchs & Fuchs, 2006; Jones, 2001; King-Sears et al., 1999). These alternatives include authentic assessment

(sometimes referred to as performance assessment), portfolio assessment, dynamic assessment, and strength-based assessment. The term authentic assessment has been used to suggest that particular types of assessment practices are authentically related to a task that may be required of someone in the real world. In this concept of assessment, the individual must perform the task required in a real-world setting. Thus, the term performance assessment is sometimes used. The teaching example in Interest Box 5.11 illustrates authentic assessment practices. If children can conduct the types of authentic tasks described—tasks that are required of adults in a real-world arena such as ecological studies—then the students may be said to understand the concepts. In short, they have been "assessed" in a much more authentic fashion than if given paper-and-pencil tests on the same topic in the school classroom. This type of assessment has many proponents among educators because this practice stresses the applicability of education to real-world problems. For example, students of English or literature may create a school newspaper, doing various writing and editing jobs, as one example of authentic assessment. Alternatively, the students may jointly write an article each week for the local newspaper. As another example, high school students who take media production classes often can be involved in

SUMMARY

Psychological Processes The psychological processes component of the definition is intended to focus on the types of ability deficits that may prohibit learning. Consequently, many tests of auditory and visual perception or motor control can be subsumed under this component. The use of intelligence tests to demonstrate deficits or developmental imbalances in psychological processing also represents an attempt to effectively quantify the psychological process component of the definition. Intelligence Assessment. Currently, the Wechsler Intelligence Scale for Children, Third Edition (WISC-III), is the most commonly used assessment for measuring intelligence in children with learning disabilities. Other commonly used tests include the cognitive section of the Woodcock-Johnson Psychoeducational Battery, the Stanford-Binet Intelligence Scale, and the Kaufman Assessment Battery for Children. The use of intelligence tests to document deficits in the basic psychological

processes has been repeatedly attempted, and the roots of these efforts spring from the concept of "developmental imbalances." Developmental imbalance may best be understood as an uneven pattern of development, such that a student may function on grade level in math but significantly below grade level in reading. Thus, an imbalance will be shown when his or her academic scores in these areas are compared. Most of the suggestions for documenting a developmental imbalance have used one of the standard IQ measures mentioned previously. For example, the subtests on the WISCIII (Wechsler, 1991) may be used to calculate a single score on general intelligence, but they may also be used to calculate two different scores: verbal intelligence and performance intelligence. Here the verbal IQ would represent language-based learning, and the performance IQ would represent visual interpretation, synthesis, and the ability to copy designs. If these two scores were widely discrepant, a developmental imbalance could, presumably, be identified and would account for a learning disability. While this distinction between verbal IQ and performance IQ will be discussed in the occasional assessment report, this concept is now considered discredited (Commission, 2001; Siegel, 1999). Another conceptualization of this developmental imbalance idea involves analysis of subtest scatter, or how the scores on an IQ assessment are grouped (Watkins, 1996). If the range of the individual subtest scores is unusually high, this would tend to indicate an imbalance in normal cognitive development. However, numerous theorists have raised questions about the appropriateness of these types of calculations (Watkins, 1996), and like the development imbalances approach described previously, the subtest scatter concept has been discredited. However, many practitioners in the field still attempt to utilize this rationale in describing a learning disability, and you may find such a rationale in various assessment reports even today. Thus, you should be aware of this logic and the unproven theoretical rationale on which it is based. Visual-Perceptal and Visual-Motor Tests. The most common visual-perceptual and visual-motor tests used today are the Bender Visual Motor Gestalt Test and the Developmental Tests of Visual Motor Integration. Although most intelligence tests include some subtests that are basically visual in nature, IQ tests are not included in this general domain of tests because IQ tests also assess things other than visual perception and motor

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performance. Basically, the tests listed above involve only visual perception and motor responses to these perceptions. The test items generally involve copying various geometric designs in order to demonstrate an ability to adequately perceive and reproduce information, though there may also be figure-ground discrimination problems and reversals. Interest Box 5.1 presents two items from the Developmental Tests of Visual Motor Integration. These tests generally have very low reliabilities, and some authorities have recommended that use of this type of assessment be terminated (Council for Learning Disabilities, 1987). As a result, these tests are being used less and less often in assessment of children with disabilities. Auditory and Language Processes Assessments. Historically, the Illinois Test of Psycho linguistic Ability, the Peabody Picture Vocabulary Test, and the Wepman Auditory Discrimination Test were the most widely used instruments for assessment of auditory and language processes. However, early research demonstrated many of the same types of reliability problems with these instruments as were demonstrated with the visual- perceptual instruments (Council for Learning Disabilities, 1987). Also, the same debate that concerns visual-perceptual testing is applicable here: Many professionals today question the

CHECK YOUR PROGRESS

I Fill in the blanks

1. ------------ organises common characteristics into group and ------------ provides a name to the group

2. The commonly used approaches for classification of disabilities are ----------and --
---------------.

3. Two advantages of classification are :

----

4. A partially sighted person is also known as a person with --------------------------

5. Blind children should be educated through ------------------- and other --------------
   ----------------- aids.

6. We can measure hearing sensitivity is --------------------------.

7. Hearing impairment can be classified into -----------------and -------------------.

8. AAMR stands for --

9. In order to classified as mentally retarded an individual's IQ should be -------------
   or -------------.

10. Orthopeadic disabilities are termed as ---------------------------------in the PWD Act.

11. Cerebral Palsy is a --------------------------- disorder.

12. Learning Disabilities is caused by the dysfunction of the ----------------------------

13. --------------------- , ----------------- and --------------------- are three categories of
    learning disabilities.

14. Two characteristics of Attention Deficit Disorder are ---------------- & -------------

15. -----------------, ---------------- and ------------------- are the major features of
    Attention Deficit/Hyperactivity Disorder.

II Match the following :

1.Visual Impairment	(i)Petit mal
2.Hearing Impairment	(ii) Academic difficulties
3.Mental Retardation	(iii) Thalidomide
4.Cerebral Palsy	(iv) Damage to anterior horn cells
5.Epilepsy	(v) Deficits in adaptive behaviour
6.Poliomyelitis	(vii)Problem
7.Teratogen	(viii)Problems in processing linguistic information
8.Learning disabilities	(viiii) Spasticity

I Fill in the blanks

1. Classification, label
2. Categorical, non-categorical
3. Any two of the following :

   Helps in naming & differentiating between disabilities

   Essential for research

   Promotes formation of support groups

   Helps development of treatments & therapies
4. Low vision
5. Braille, tactile / auditory
6. Decibels
7. Deaf, hard of hearing
8. American Association on Mental Retardation
9. 70, below
10. locomotor disability
11. non.progressive
12. Central nervous system
13. Dyslexia, dysgraphia, dyscalculia
14. Any two of the following :

    Over activity

    Restlessness

    Impulsivity

    Aggressiveness

    Unpredictability
15. Inattention, hyperactivity, impulsivity

ASSIGNMENT?ACTIVITY

1. Select any one kind of disability and study 5 such disabled children. Subdivide in to subgroups on the basis of features observed.

POINTS FOR DISCUSSION / CLARIFICATION

After going through the unit you may like to discuss or seek clarification on some points if so, please mention the points below :

Points for Discussion

_____

_____

Points for Clarification

_____

_____

_____

_____

_____

_____

_____

FURTHER READINGS

1   Hallahan, D.P. & Kauffman, J.M. (1991) Exceptional Children. Introduction to Special Education, Allyn & Bacon, Boston

2   Ashman, A & Elkins,J.(Eds)(1994) Education of Educating Children with Special Needs, Preutic Hall, New York

3   Hewett, F.M. & Forness, S.R.(1974) Education of Exceptional children, Allyn & Bacon, Boston

4   Smith, D.D. & Luckasson, R.(1992) Introduction to Special Education. Teaching in an age of challenge, Allyn & Bacon Baston

5   Berdine, W.H. & Blackhurst, A.E. (1985) An Introduction to Special Education. Little Brown & Company, Boston.

UNIT – 3 : STRATEGIES FOR READING, WRITING AND MATHS

STRUCTURE

- **Introduction**
- **Objectives**
- **Definitions**
- **Summary**
- **Revision**
- **Assignment/Activity**
- **Points For Discussion And Clarification**
- **References / Further Readings**

INTRODUCTION

All learning requires the use of strategies. Because math works with both the concrete and abstract, specific tactics may be necessary for understanding and succeeding in a math classroom. **Math strategies** are methods used to solve problems in math. Students sometimes come about these naturally, but many are taught by teachers. For some students, such as those with special needs, specific strategies are necessary. Let's take a look at what learning disabilities are and how strategies may be different for those students.

Reading and writing in mathematics are of particular interest to educators because these processes are essential to both problem solving and concept development in mathematics. Martinez and Martinez (2001) discuss what happens when children read and write mathematics:

For starters, their learning incorporates some key ideas in the National Council of Teachers of Mathematics new *Principles and Standards for School Mathematics* (NCTM, 2000). They learn to use language to focus

on and work through problems, to communicate ideas coherently and clearly, to organize ideas and structure arguments, to extend their thinking and knowledge to encompass other perspectives and experiences, to understand their own problem-solving and thinking processes as well as those of others, and to develop flexibility in representing and interpreting ideas. (p. 5)

Reading research clearly points to several characteristics of effective readers. They can:

- Locate key information
- Distinguish between main ideas and supporting details
- Modify their reading behaviors when faced with difficulty
- Ask questions before, during, and after reading
- Construct meaning as they read by monitoring comprehension, evaluating new information, connecting new information with existing ideas, and organizing information in ways that make sense

These characteristics also describe effective readers of mathematics and skills needed to be mathematics problem solvers.

Reading and Writing Strategies for Problem Solving

Mathematics is about problem solving, and reading comprehension is an important component, especially for word problems. Writing, too, is a critical component, because students should monitor and reflect on the problem-solving process as well as communicate their thinking during problem solving.

Problem solving in mathematics often is viewed with a conceptual model proposed by George Polya (1957). Polya's model has four steps:

1. **Understand the problem.** Determine what information is given, what is the unknown, what information is needed or not needed, and what is the context or conditions of the problem. Restate the problem to make sure terminology and facts are understood.

2. **Devise a plan.** Consider how to go about solving the problem and what strategies would help in finding a solution. This may be as simple as selecting the numbers and operations demanded by the problem. It might include examining different ways to approach the problem, for example, comparing it to problems solved previously, or finding related problems, or making and checking predictions.

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3. **Carry out the plan.** Use the plan as devised, and check or prove that each action taken is correct.
4. **Look back (and forward).** Examine the result or solution to make sure it is reasonable and solves the problem. Ask if there could be other solutions or if there are other ways to get a solution. Perhaps extend or generalize the problem.

Here is a quick preview of the strategies discussed in this article and how you might use them. The strategies are associated with Polya's four-step model; i.e., each strategy includes the steps in Polya's model.

- **K-N-W-S** and **SQRQCQ**. These are especially useful for helping students understand the steps in problem solving
- **Three-level guide.** This is a good choice for focusing on important facts or approaches.
- **Word problem roulette.** This strategy lends itself nicely to collaboration.
- **Process log and RAFT.** These two strategies are well suited to help students communicate their thinking.

For these reading and writing strategies to become an effective part of a student's "toolbox," teachers must provide instruction on how and when to use them. When providing instruction, consider the following teaching suggestions:

- Introduce one strategy at a time, and let students apply it several times while you observe what they are doing and where they may need help.
- Model and explain the use of a strategy in an activity that lets students see how and why to use it.
- Practice a strategy as a whole class before asking students to use it independently. During the whole-class activity, solicit and compare various responses on how the strategy can work.

K–N–W–S
Description of K-N-W-S
K-W-L (Ogle, 1986) is an active reading tool to help students build content knowledge by focusing on the topic and setting the purpose for the

upcoming reading. During K-W-L, students list what they *know* about a topic (K), note questions they have and what they *want* to learn (W), and summarize what they *learned* (L). In a similar pattern, K-N-W-S allows students to use word problems to determine what facts they *know* (K), what information is *not* relevant (N), what the problem *wants* them to find out (W), and what *strategy* can be used to solve the problem (S).

In reading, the K-W-L strategy helps all students, no matter the age or achievement level, activate their prior knowledge, develop a purpose for the reading, and make connections between new information and familiar ideas. The K-N-W-S strategy does this as well. In addition, the K-N-W-S strategy allows students to plan, organize, and analyze how to solve word problems, while teachers can evaluate students' understanding and possible misconceptions about word problems. The strategy allows students to focus on what effective students do when assigned word problems.

Guidelines for Use of K-N-W-S

1. Draw a four-column chart on the board or chart paper. Hand out individual charts to students, or have students construct their own.

2. Using a word problem, model how the columns are used. Explain how you know which pieces of information belong in each area of the chart.

3. Students can work in groups or individually to complete K-N-W-S sheets for other word problems. Students can also be asked to write their reasoning for the placement of items in each column.

OBJECTIVES

At the end of this unit you should be able to

- Define the term 'incidence' and 'prevalence' and explain the difference between them

- Describe the factors that influence prevalence of disabilities.

- Provide an estimate of prevalence of various disabilities at national and international levels.

DEFINITIONS

What type of learner are you? Do you take information in easily from lectures, or do you need to get your hands moving to make sense of how things work? People learn in many ways. Teachers use different instructional practices in an effort to reach all learners. Sometimes traditional instruction poses a challenge to students. They can be diagnosed with a learning disability, a broad term used to identify those who struggle with learning at the level of their peers. A learning disability does not include a physical handicap. Children with learning disabilities do not necessarily have lower IQ scores or cognitive ability; their brains are wired differently and require instruction in reading, writing, math, and other subjects to be nontraditional.

Common learning disabilities include:

- Dyslexia, a reading disability based in language
- Dyscalculia, a mathematical disability based on number sense
- Auditory or visual processing disorders, sensory disabilities that make hearing or seeing difficult even though there are no physical issues with either.

Students diagnosed with a learning disability are found in almost every classroom. They often receive additional support from a resource outside the classroom, such as a specially-trained teacher, often called aresource teacher. They can also receive accommodations on tests, class, and homework. Accomodations are adjustments made to assignments and exams that allow those students with learning disabilities to complete the same academic tasks as their peers. Classroom teachers need to be aware of the needs of students with learning disabilities and offer unique and specific strategies for them to use.

Instructional Strategies

When teaching math to students with learning disabilities, it is important for teachers to keep a few basic thoughts in mind:

- Keep lessons brief. Students with learning disabilities are often overloaded if too much information is given at once.
- Break up steps. Even low-level math sometimes involves a multi-step process. When teaching, break up the steps into small lessons and make sure the student understands one before moving on to the next.
- Use real-life examples. Students with learning disabilities can benefit from connecting learning to examples from their lives, increasing their ability to remember skills

SUMMARY

The evaluation committee will determine appropriate programming based upon careful analysis of all evaluation information, including the student's observed behavior during an instructional period. Numerous intervention approaches and strategies have been developed for students who have specific learning disabilities. It is the responsibility of instructional personnel to review and evaluate such interventions for appropriateness and effectiveness. However, the emphasis must be on programming which meets individual needs. Students with SLD often encounter difficulty with materials used in regular classroom instruction. Therefore, modifications in pace, content and/or curriculum may be necessary for those classes.

CHECK YOUR PROGRESS

Fill in the blanks

Prevalence

Incidence

Prevalence

Age, sex, social class & race

Visual impairment

Hearing impairment

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Poliomyelitis

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ADD & ADHD

II. Match the following:

i) (c)

ii) (d)

iii) (a)

iv) (e)

v) (b)

ASSIGNMENT/ACTIVITY

1. Estimate the prevalence of various disabilities present in your village/Locality.

POINTS FOR DISCUSSION / CLARIFICATION

After going through the unit you may like to discuss or seek clarification on some points if so, please mention the points below :

Points for discussion

Points for clarification

FURTHER READINGS

1   Kapur, M (1997) : Mental Health in Indian Schools, Sage Publications India Pvt. Ltd.

2   Kundu C.L. (Ed.)(2000). Status of Disability in India 2000. Rehabilitation council of India, New Delhi.

3   Hallahan, D.P. & Kauffman, J.M. (1991) Exceptional Children. Introduction to Special Education, Allyn & Bacon, Boston

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UNIT – 4 : CURRICULAR ADAPTATION, IEP, FURTHER EDUCATION

STRUCTURE

- Introduction
- Objectives
- Definitions
- Summary
- Revision
- Assignment/Activity
- Points For Discussion And Clarification
- References / Further Readings

INTRODUCTION

Learning disabilities is a general term that refers to a heterogeneous group of disorders manifested by significant difficulties in the acquisition and use of listening, speaking, reading, writing, reasoning, or mathematical abilities. These disorders are intrinsic to the individual, presumed to be due to central nervous system dysfunction, and may occur across the life span. Problems in self-regulatory behaviors, social perception, and social interaction may exist with learning disabilities but do not by themselves constitute a learning disability. Although learning disabilities may occur concomitantly with other handicapping conditions (for example sensory impairment, mental retardation, serious emotional disturbance) or with extrinsic influences (such as cultural differences, insufficient or inappropriate instruction), they are not the result of those conditions or influences

Every child is different. However, when a student has special needs, those differences may be even more pronounced. When students with special needs are placed in a regular classroom, they may not know how to cope. They may have difficulty getting around, focusing on the lessons, or even hearing the teacher or seeing the lesson. This can lead to emotional distress, acting out, disruptions, or even angry outbursts in the classroom.

Even among students who have learning disabilities, there are a wide range of abilities. Some children read hundreds of words a minute; others struggle to read a story far below grade level. Some students grasp math concepts quickly and race ahead to

advanced work, while others lag behind, seemingly unable to comprehend basic multiplication.

Nonetheless, teachers are expected to accommodate all of these situations, follow every individualized education program (IEP), and ensure that every student gets as high a score as possible on annual standardized tests. This is where the curriculum adaptation specialist comes in, and where a good one proves invaluable.

A curriculum adaptation specialist alters the teacher's curriculum to accommodate each child's learning style, and compensate for his or her disability. Sometimes, with a few adaptations, the student with disabilities or learning problems can learn just as well as the rest of the class, or at least learn to compensate and cope with his or her learning challenges. With each adaptation you make, you provide opportunities to help support the social, intellectual, and personal development of each student.

In previous decades, children who had a difficult time paying attention were disciplined, overlooked entirely, and/or labeled "bad" students. Today, there are a growing number of students identified with autism, ADD, and other disorders such as childhood and adolescent depression. There's a growing demand to adapt curriculum and lesson plans in order to help these children overcome the problems they face. And as a curriculum adaptation specialist, it's your job to make it all work.

What is it like?
The main role of a curriculum adaptation specialist is to determine how a curriculum meets an individual child's needs, and then to adapt it to each student's abilities for the best possibility of success. Therefore, you are responsible for understanding the impact a student's disabilities can have on his or her emotional, physical, social, cognitive, and communication development.

As a curriculum adaptation specialist, you must understand the different ways students learn—not only in terms of learning disabilities, but also legitimate but widely differing learning styles. Armed with this knowledge, it's your task to create instruction and coursework opportunities that can be adapted for learners who may need unconventional methods in order to navigate the learning process.

Adaptation specialists must also understand the nature of instructional planning and instructional design, particularly in the context of the school(s) they serve. Any adaptations you make to curriculum or lesson plans will not only be based upon student needs, but also on the needs of the community, school district, and teacher, as well as IEP and curriculum goals. Meeting standardized testing requirements for core subjects is one primary goal that will inevitably come up. Every adaptation you make should also prove student progress, as defined by test results.

Students who are physically or cognitively disabled may need additional physical adaptations to the curriculum itself. This could come in the form of lessons in Braille,

oral examinations rather than independent reading examinations, adapting difficulty appropriateness for children with limited cognitive ability or neurological disorders, special technology to deliver lessons, and possibly picture instructions rather than word instructions.

Some curriculum adaptation specialists work in special education classrooms, adapting grade requirements to specific student needs. However, with the current trend toward mainstreaming, curriculum adaptation specialists may spent a large part of their day assisting teachers in developing lesson plans to meet their specific students' abilities and special needs. They may also work with students individually, or in small groups, to work on specific skills that need additional attention.

A curriculum adaptation specialist will likely be heavily involved in developing IEPs for a broad range of special-needs students. Through input from the student's teachers, school counselors, occupational or physical therapists, academic assessments and parents, you'll collectively determine how best to help children achieve their highest academic potential and have great educational experiences.

Some curricular or lesson tweaks you might make include giving students additional time on tests, reading questions aloud to them during testing, having a tutor or assistant present during exams, or supplying additional tutoring throughout the year. The curriculum may need to be adapted in other ways as well. Pictures may need to accompany a text, to help the student decipher meaning; or a student may be allowed the use of additional technology, such as an iPad, to help them grasp and research concepts. Students may even need special privileges, such as the freedom to get up and move every couple of minutes.

There are many different teaching methods and trends in education. A variety of new therapies and learning strategies are being introduced, with almost alarming frequency. Therefore, a significant part of your job will also be to stay on top of innovations and changes to teaching methodology and learning theory, so that you can help your school(s) and teachers develop the most effective curricula for their students.

Curriculum adaptation specialists have many options available to them when it comes to employment. In fact, less than half of curriculum specialists work for public school systems. The remainder work for private schools, state governments, corporations, and family service providers. Teacher instruction on using technology in the classroom for special needs children is one of the fastest growing areas of this profession.

One of the main drawbacks in working as a curriculum adaptation specialist is the long hours you may be required to work, especially during certain times of the year. You may also have to travel between schools. However, the higher salary can help make up for the longer hours and drive time.

Special certifications can often benefit curriculum adaptation specialists, as they'll need to understand students with multiple disabilities and develop lessons tailored to them. The National Association of Special Education Teachersprovides many teaching

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resources, including help in obtaining certifications, learning new teaching methods, and securing teaching contracts.

OBJECTIVES

Accommodations for Adults with Learning Disabilities • An accommodation is a different way to do a task. It uses a learner's strengths to work around the learner's areas of need. • Accommodations are not cheating, but a way of making things fair. Remember that "fair is not equal". If a person has a spinal cord injury, it is not unfair for that person to use a wheelchair while others have to walk. • Accommodations do not mean that others do the work. The adult does the work, but in a way that might be different from how others do it. • An accommodation can be as simple as using one's fingers in math or, with the help of assistive technology, as complex as using a voice-activated computer that types spoken language. • The key is to match accommodations to the circumstances, to the learner's needs and abilities, and to the specific learning disability. • Sometimes accommodations are the only way to complete a task. When learning a skill is not the goal, or when learning that skill is too stressful or difficult, then consider accommodations. Accommodations then, are task- and not learning-oriented. Likewise, the use of technology is often taskoriented. Using that same technology to teach a skill is learningoriented.

DEFINITIONS

aking the Skills Route or the Bypass: Understanding the Difference ! Adaptations/Accommodations for Task-oriented Goals: Bypassing or Compensating for Difficulties Goal: Complete job applications to get a better job Accommodation: Use the Quicktionary Reading Pen to identify unknown words on job applications Goal: Write customer orders for chef at restaurant (waiter) Accommodation: Create card with shorthand spellings of "problem" menu items and share with chef Goal: Do handwritten cost estimates for carpentry work (self-employed carpenter) Accommodation: Create form with common materials and costs preprinted (circle only), and improve skill with a calculator ! Adaptations/Accommodations for Learning-oriented Goals: Instructional/Remedial Strategies and Tools to Build Basic Skills and Knowledge Goal: Increase sight word vocabulary and reading fluency Adaptation/Accommodation: Tape readings for home study and use as teacher/coach, replaying as needed while reading and rereading"to allow more independent reading practice Goal: Improve writing and/or spelling Adaptation/Accommodation: Make word cards for "spelling demons" (commonly misspelled words); use foam letters to

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spell words as teacher sounds them out slowly; highlight problem word parts with a colored marker when studying ! Where the Twain Shall Meet: Learning and Task Achievement Go Hand in Hand Use of compensatory strategies and tools (chosen originally to bypass the problem) may eventually result in learning. For instance, repeated use of the Quicktionary Pen may teach new sight words, improve spelling, improve comprehension by increasing accuracy of word identification, or build vocabulary and fluency by allowing more independent reading. ProLiteracy America Online Information Center 7 Identifying ropriate Accommodations Checklist for Planning Adaptations/Accommodations Decisions about adaptations and accommodations must be made on an individual basis, considering the learner's strengths and specific needs, and most importantly his/her goals. Is the goal primarily to improve skills or is it to do something in life—at work, for instance? Is the need immediate, or does the learner have time to build the required skills and knowledge? When considering one or more adaptations or accommodations for classroom use or daily-life tasks, you may note and compare them using a checklist like the one below, which is adapted from a form found in Accommodating Adults with Disabilities in Adult Education, developed in 1998 by the University of Kansas Institute for Adult Studies.

Accommodating Accommodations for Candidates Taking the GED Tests Nonstandard editions of GED tests " Audiocassette " Braille " Large print What is allowed with approval? " Extended time " Private room " Frequent breaks (supervised) " Interpreter " Scribe " Calculator What is not allowed " Computers (in most classes) " Readers (English version) " Rulers/measuring devices Accommodations not requiring approval " Colored transparent overlays " Clear transparent overlays and highlighter " Temporary adhesive notes with spatial notes " Earplugs " Large print test " Magnifying glass " One test per day " Straightedge The process " Requests must be made in writing on the correct forms, L-15 Form learning disabilities and AD/HD: SA001 Form for emotional or physical disabilities. " Documentation from an appropriate certifying professional must be included with request (a certifying advocate may transpose relevant information on the form). o Diagnosis using either DSM-IV or HCFA numerical codes o A statement or test results attesting to the cognitive potential of the candidate requesting accommodations o A statement of how the disability currently, significantly, and negatively affects the candidate's academic achievement o A statement of how the accommodations requested meet the needs of the identified disability\

A disability is a physical or mental impairment that limits one or more things you want and need to do. It can make it difficult to: " Walk, see, hear, or breathe; " Take care of yourself; " Learn; or " Work. Adults with disabilities include but are not limited to persons with conditions, diseases, and infections, such as: " Physical, sight, speech, and hearing impairments; " Epilepsy, muscular dystrophy, multiple sclerosis; " Cancer, heart disease, diabetes; " Infection with the Human Immunodeficiency Virus (HIV); " Mental retardation; " Emotional illness; or " Specific learning disabilities. Persons with a history of such a condition or persons whom other people think of as having such a condition are also considered as people with disabilities.

Compensatory Strategies: Instructional and Vocational Rehabilitation for Adults with Learning Disabilities

If a person with a learning disability has this weakness...	Coupled with this strength...	Try this possible accommodation/adaptation
Perseverates: has trouble moving onto new tasks	Can follow strict time schedule	• Specify time limitation for each activity • Have individual check off tasks completed and keep charts of tasks to do • Give feedback to student (e.g. if work is accurate, give extra credit for completion before specified time allotted)
Learns erratically (sometimes knows, sometimes does not know)	Short term memory is good	• Keep model of finished product near person • Tape instructions from prior time periods, which are prerequisites to doing a given activity

Easily distracted; cannot sustain attention on task	A) Functions well in a quiet environment
	B) Works well when given short time periods to do a specific task
		A) Locate person in a stimulus-free environment, possibly a carrel or small office
		B)
		  • Give person a time chart to complete with expected time to finish and his finish time
		  • If possible, do one step of a task at a time
		  • Tell person to focus on the speaker's eyes when listening to instructions

Easily frustrated; lacks self-confidence	Responds to positive reinforcement Responsive to keeping track of work quality	• Assign short tasks and have self-rate quality of work and interest in individual types of task • Have individual keep track of work productivity • Give feedback on activity and an overview of progress to date from beginning of program • Repeat work the person enjoys and can succeed in doing
Difficulty following and/or staying on time	Tells time accurately	• Recommend that the individual wear a watch with an alarm or use a stopwatch to time tasks • Give time limitations for tasks and monitor time at the onset of training and then progressively have individual monitor own time • Use a timer to complete tasks within set time limit
Directionality confusion (left vs. right, north vs. south, etc.)	A) Communication skills B) Copies visual model or demonstration well	A) Motivate person to ask questions when confused with directions • Show model; then have person copy it • Use distinguishing feature on body or area as a landmark (e.g. if a person is confused by right and left, place an "R" in the upper right hand corner of desk)

If a person with a learning disability has this weakness...	Coupled with this strength...	Try this possible accommodation/adaptation
Poor spatial judgment (interferes with focusing on key reading material)	Good finger dexterity	• Have individual use ruler as guide to hold place • Use highlighters to outline specific information to focus on • Use color transparency overlays that will reveal needed information while blocking background data
Impulsive; rushes through task making many errors	Responds well to clear, concise directions	• Emphasize intent of task, such as accuracy being more important than time
Cannot copy close work	Can copy blackboard work; can read written work	• Have individual copy blackboard notes • Duplicate teacher's notes; carbon copy another student's notes
Difficulty integrating parts of items into whole unit (finished product)	After visualizing a whole unit, can see how parts integrate into it	• Show person finished products, so he may see how parts integrate into a meaningful whole (e.g. show a person in electronics assembly a harness before he is given directions to make it himself)
Forgets information presented visually	Remembers information presented orally	• When possible, use tape recording and verbal instructions to relay information
Difficulty functioning when people or environment changes	Functions well in familiar environment	• Put individual in a highly structured and, if possible, familiar area where change and distractions would be at a minimum
Difficulty functioning in large open spaces with noisy backgrounds	Functions well in a quiet closed areas	• Have individual work in small quiet office or room • Wear earplugs or headphones
Difficulty reading directions	Listening comprehension and visual comprehension strong	• Tape or read written directions • Demonstrate work and have person model demonstration
Difficulty remembering basic math facts	Understands basic math concepts; has good finger dexterity	• Individual should use calculator when required to do basic math functions • Utilize "fact sheet"
Difficulty telling time	A) Can read digital watch B) Socializes well	A) Buy digital watch B) Pair up with an individual keeping a similar schedule
Lacks social judgment	Learns well in concrete situations	• Use group activities, like role-playing, to reinforce positive behavior • Whenever possible, give immediate gratification to reinforce positive behavior

If a person with a learning disability has this weakness...	Coupled with this strength...	Try this possible accommodation/adaptation
Poor visual memory	A) Good auditory memory	A) Explain written directions orally • Present information orally, not only visually • Have person use talking calculator or spell corrector to check accuracy of work
	B) Functions well when model stays in sight	B) When required to perform a task, have the model of the finished product available to the person
Poor auditory memory	Strong visual memory	• Draw or write directions • Tape directions if visual presentation is unavailable • •Simplify oral directions

SUMMARY

An accommodation is any change needed to help you learn the skill or do the work necessary for you to learn. It may mean: " Using different kinds of learning materials; " Using special equipment, such as a computer or a calculator; " Having a special tutor or other qualified person to help you; or " Using auxiliary aids and services. An accommodation Does not include making changes in rules to make it easier for you than for others; and Should not create a hardship. You may not get the most expensive or "best" accommodation, just one that will help you do what needs to be done.

Be your own self-advocate. Self-advocacy means that you can explain your disability, suggest some accommodations, and find ways to help yourself. Tell about your disability if you want accommodations. Be prepared to provide records about your disability. Tell what accommodations have worked for you. Know that you have legal rights. Ask for accommodations based on your need and the law.

The framework used in the charts and summarized below was devised by the Resource Center guide developers using the work of nationally recognized learning disabilities specialists. (See References for sources.) You may use this framework to structure the collaborative problem-solving process. ♦ Adjust the Setting/Environment Alter the environment or provide ways to screen out disrupting environmental stimuli. ♦ Adapt the Task Find ways to avoid/bypass the problem or devise strategies the adult can use

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to lessen the impact of the problem. ♦ Adjust Instruction/Presentation of Information Alter the way you present information to the adult (in a workplace setting) or adapt your instruction in response to individual needs and strengths (in the classroom). ♦ Make Accommodations in Testing/Performance Work around specific difficulties to devise a true measure of abilities. Do not allow disabilities to prevent an individual from showing what he/she can do. Allow an adult to respond and demonstrate competence on the job by using his/her strengths and abilities and, when possible, bypassing disabilities. As you will see on the charts on the following pages, these four categories often overlap. Some approaches to accommodation are more suited to one kind of difficulty than to another, but using the framework may be helpful because it encourages teachers and learners to "cover all the bases" as they think creatively about accommodations.

CHECK YOUR PROGRESS

1) What are the early indicators of a possible learning disability, M.R, V.I, H.I.

2) Visit an orthopedic center children's section. Observe the children and categorize them into their orthopedic conditions.

SUGGESTED ASSIGNMENT

1) Observe and describe the motor movements of a child (0-2 yrs, 3-5 yrs, 6-8 yrs, 9-12 yrs.) with spasticity, athetoses, ataxia, muscular dystrophy, MMC, and polio.

POINTS FOR DISCUSSION / CLARIFICATION

After going through the unit you may like to discuss or seek clarification on some points if so, please mention the points below :

Points for discussion

Points for clarification

SUGGESTED READINGS

1. Eugene E Bleck and Donald Physically Handicapped Children.
   Donald A Nagel (1975)A Medical Atlas for Teachers.
   Black Engene E,Grune and Stratton Inc.
   Nagel Doneld A.
2. Richard A Culatta   Fundamentals of Special Education.
   James R. Tompkins (1999) What Every Teacher Needs To Know.
   Culatta, R. A, Tompkins James R.   Merrill Prentice. Hall Inc. NJ 07458

3. Willam I Gardner (1977)Learning and Behaviour Characteristics
   Gardner, William I of Exceptional Children and Youth.   Allyn and Bacon-M-
                                  02210.

UNIT – 5 : TRANSITION EDUCATION, LIFE LONG EDUCATION

STRUCTURE

Introduction

Objectives

Definitions

Summary

Revision

Assignment/Activity

Points For Discussion And Clarification
References / Further Readings

INTRODUCTION

One of the most topical transition issues being examined today is the service delivery for adolescents and adults with learning disabilities. There are currently numerous articles, conference presentations and even books focused on this new and frequently unexplored area. And yet, many questions still remain. In order to understand and better define the transition process for students with learning disabilities, we have chosen a case study approach to provide a comprehensive example of what transition is and how it was addressed with one student. It is hoped that the information derived from this case study will not only expand knowledge of transition but assist service providers in facilitating the successful transition of students from school to postsecondary settings and employment.

Globalizations and individualization have radically changed both the economic system and the personallifei vorld in industrialo rpostindutstrialn ation-states. To survive lypercompetition and volatile consumer choice, learning organizations and a workforce engaged in lifelong leaming are needed. Constructing "the good life" has become an individutal responsibility demanding reflexivityandskills. The questionpursuedin this article ishow currentpolicies in the context of lifelong learning relate to the requirements of a competitive economy, on one hand, and the good life on the other hand. To be able to evaluate dominant and alternative ansvers thoroughly in terms oflifelong learning, the aulthors look at the consequiences of globalization and individualization. After having analyzed lifelong learning policies in the Netherlands,

the article examines an important alternative, the so-called biographicity approach. In conclutsion, the allthors olutline theirowvn "transitional learning "perspective asan integral approach to lifelong learning as life-wide learning.

Globalization and individualization constitute the driving forces of the information society. Global hypercompetition, markets on the move, and individualized consumer choices make demands upon an increase in technological and cultural intelligence in the organization of work. In the face of continuously changing circumstances, both organizations and employees have to become flexible. Creating the learning company and developing lifelong leaming (LLL) with a view to economic competitiveness have become the gospel of the "knowledge economy."

At the same time, individuals are, more than ever before, on their own in facing the speed and scope of changes in a globalizing information society. Transformations are not restricted to the sphere of the economic system but are clearly visible in the social and cultural dimensions of the personal life world. The significance of traditional social structures (e.g., social class and gender relations) together with canonized cultural orientations (e.g., religious ethics, scientific truth, and civic virtues) for leading one's life is rapidly eroding. Rather than social or moral conformity, individual distinction is the new, postmodern imperative. In a detraditionalized world, women and men are expected to make their own plans and decisions on how to construct their personal, working, and public lives, and, what is more, how to combine all of these in what they value as "the good life." The question explored in this article is how current policies of LLL relate, on one hand, to the requirements of a competitive economy and, on the other hand, to the good life. To be able to thoroughly evaluate dominant and alternative answers in terms of LLL, we have to look in some greater detail at globalization and individualization, and their consequences. We analyze how LLL in the Netherlands addresses the problems involved, and we examine the implications of "biographicity" as an alternative response (Alheit, 1995). In conclusion, this article elaborates our own approach, which is based upon the notion of "transitional labor markets" (TLMs; Schmid, 1998) and which we call "transitional learning" (TL). This article aims at grounding and outlining a'program for LLL as TL. It must be stressed that our analysis of globalization, individualization, and LLL is addressed to late modem industrialized or postindustrialized societies and aims at developing new perspectives for adult educators based in the West.

Globalization is a much-contested concept (Held & McGrew, 2003). Debates pertain to its novelty, universality, ideological nature, market character, and the risks and opportunities involved. Does it enhance cultural convergence in the sense of Westernization or, rather, divergence in terns of reverse colonization, and what is its impact on the autonomy and sovereignty of nation-states? In our analysis, globalization is neither a univocal nor a finished condition. It is rather a multifaceted, historical development with differential impact according to the place and the specific

dimensions involved. Although it builds on a history of international relations between nation-states, it is new in the sense of the growing extensiveness of social networks involved, the intensity and speed of flows and interconnections within these networks, and the reach of its impact. Globalization entails the increase in mobility as witnessed, for example, in the international financial markets, on the Internet, and in migration processes. Important consequences of the radically increased mobility of capital is, first, its capacity to bypass devalued peoples and territories (Castells, 1996), its general disengagement with regard to labor, and the growth of social inequality (Beck, 1997; Hutton & Giddens, 2001). Glastra et al. / LIFELONG LEARNING 293 Bauman (2001) argues, for example, that the more important relationship for capital in the development and selling of ideas is no longer with labor but with consumers. This means, second, that job insecurity is on the increase worldwide as a result of the speed and interconnectivity of capital movements. Third, there is the process of mass migration among those on the receiving end of globalization. This confronts the Organization for Economic Cooperation and Development (OECD) countries, for example, with both the enriching and disturbing features of cultural and ethnic diversity (Glastra, Meerman, Schedler, & Vries, 2000). Fourth, there is the emergence of different forms of resistance against the "converging powers" of globalization, as exemplified in social and popular movements around the struggle for national, regional, ethnic, or religious identities. Globalization is also closely related to the role of information and communication technology in facilitating almost instantaneous access to information without regard to spatial dimensions and time horizons. The application of information and knowledge in all spheres of social life has become the most dynamic feature in the transformation of late-modern societies. This, in turn, gives rise to learning as a permanent feature of social life. Globalization confronts nation-states, organizations, and individuals with learning challenges as they struggle to cope within rapidly changing and unstable global and local environments. This is not a necessity that is felt in the same measure by the populations of all continents. As Castells (1996, p. 34) has pointed out, "There are large areas of the world, and considerable segments of the population, switched off from the technological system."

OBJECTIVES

It should be emphasized that very little empirical data or qualitative data are available about the transition process of adolescents and adults with learning disabilities (Hedberg, 1987; Mick, 1985; The New York Area Study Group on Transition, 1986; Price, 1986; Price, 1989b). Such a lack of supporting data and documentation is a critical gap, because a survey of the professional literature shows that: (a) many authors now recognize the transition process clearly exists (Hedberg,1987; New York Area Study Group, 1986; Okolo & Sitlington, 1986; Scheiber & Talpers, 1987); (b) it is an important development phase in the lives of individuals with learning disabilities (Dalke & Schmidt,1987; Kroll,1984; National Joint Committee on Learning

Disabilities, 1987; Price, 1986); and (c) because learning disabilities are a life-long condition, continued support will be necessary for the individual with learning disabilities (AHSSPPE, 1986; Hedberg, 1987; Kroll, 1984; National Joint Committee on Learning Disabilities, 1987; Ness, 1989; Okolo & Sitlington, 1986; Scheiber & Talpers, 1987; Seidenberg, 1986). The support needed for these individuals can be vocational (Brown, 1982; Clark, 1980; Crimando,1984; Okolo & Sitlington,1986); academic (Cronin & Gerber,1982; Hinds, 1984; Kroll,1984; Mangrum & Strichart,1984); or social skills assistance (Alley, Deshler, Clark, Schumaker & Warner, 1983; Donahue & Bryan, 1984; Morse, 1977; Orzek,1977). Consequently, it is the intent of this case study to build on this body of transition knowledge and clarify it through illustration of the transition process for one student with learning disabilities.

DEFINITIONS

Julie's case was selected because she represents a unique insight into the complexities that a student with learning disabilities might confront while preparing for adult life. It attempts to provide the reader with an understanding of one individual's experiences during the transition process, the interaction between Julie and her transition counselors, and the total holistic process that transpired over a 3-year period (1986-1989).

Julie's case study is unique to her, but a is also fairly typical of other students who participated in the LD Transition Project. Each student displayed a wide range of skills, interests, and needs. During the transition process, many of the students progressed and changed as they worked through complex stages of development and self-awareness. Each required a truly individual "plan" to be able to move successfully from high school to a postsecondary program. Additional background information about Julie is provided to better understand her personal experiences.

Julie, a 17-year-old white female, lived in a large, urban, midwestern city with her parents. She had received special education services since first grade, where she attended a special school for students with physical and learning disabilities. During seventh grade, Julie transferred to an accessible regular junior high. At ninth grade, she transferred to a regular high school where she received resource room special education services for students with learning disabilities. Julie's 11th grade individual education plan (IEP) indicated that her primary disability was "learning disabilities" and that her secondary disability was "ostegenous imperfecta" (brittle bones), which required her to use an electric wheelchair. She was in the mainstream 83% of the time and received special education support 17% of the time during the school day. According to current test results, Julie demonstrated strengths in the areas of

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mathematics and spatial skills as well as eye-hand coordination and visual perception. Her weak areas that affected her learning were in oral and written language.

A combination of psychometric and vocational assessments were administered to Julie in her junior year of high school. She scored a 12th grade equivalent in Vocabulary and a 12th grade equivalent in *Comprehension* on the *Gates MacGinitie Reading Test*, with an overall reading level of grade 12. Her scores on the *Wide Range Achievement Test-Revised (WRAT-R)* indicated Spelling at 6th grade level, and Math at the 11th grade level. Sub-test scores on the *Career Occupational Preference System Interest Inventory (COPS)* included: Science/Professional at the 97th percentile, Service/Professional at the 94th percentile, Outdoor at the 89th percentile, Arts/Skilled at the 74th percentile, and Science/ Skill Labor at the 68th percentile.

A summary of the academic, vocational and work samples assessment identified strengths in Julie's ability to take the initiative, and in her outgoing, friendly, pleasant and cooperative behavior. Her level of academic achievement, evidence that her quality performance could be transferred into appropriate job settings, and her interests would predict success in several occupational areas. An area of weakness for Julie was the limit of vocational options available to her because of her physical disability. She would require light lifting and a more sedentary role in a job. The occupational area in which Julie expressed an interest (becoming a veterinary technician) was not considered realistic for her given her physical disability.

Results on *The Career Assessment Inventory* (National Computer Systems, 1986) were consistent with her previously expressed interests in becoming a veterinary technician. It was suggested to Julie that because of her high interest in the Social and Investigative areas, she may want to explore a 4-year rather than a 2-year postsecondary program. Julie agreed that this might be a possibility.

The Student Questionnaire (LD Transition Project, 1987), a self-report inventory, was given to all Project participants as a pre- and post-measurement of knowledge about transition issues including the following: (a) the student's level of awareness and skills in various areas of transition; (b) skill areas that the student would need to develop, and (c) appropriate modifications and accommodations to suit individual student needs.

Julie's initial screening on *The Student Questionnaire* revealed that she had some insights into her learning style. She listed math, singing and "people liking her" as strengths in school, and "being responsible" as a strength on the job. She felt that other people would view her "outgoing" personality as a strength as well. Julie listed her preferred mode of learning to be through listening, talking or discussing things, writing or drawing and through experiencing. Speed in reading and writing were seen as problem areas. She named four specific postsecondary schools and two program areas in which she had personal interest, but she was aware of only one postsecondary

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school that offered special services to students with learning disabilities. Julie's assessment of her "self-advocacy" skills was very high. She felt she was able to ask for and get the help she needed. She stated that she was "very likely" to utilize a number of accommodations and services if the need arose in a class situation. Julie also perceived that she had the ability to manage her time, set goals and complete assignments, and had no difficulty with general study skills.

The Janis-Field Attitude Inventory (Robinson & Shaver, 1973) is designed to measure a student's self-esteem level. Julie's score of 4.15 placed her in the high average range compared to other project participants whose overall average score was 3.5 (average self-esteem).

The *Wechsler Adult Intelligence Scale-Revised* (The Psychological Corporation, 1981) was administered to all project students to identify strengths and weaknesses and to fulfill the entrance criteria for participation in the project. Julie's overall score placed her in the average range of intelligence (Full Scale I.Q. 105) with strengths in the areas of spatial motor skills and mathematical reasoning ability. She also showed strengths in the areas of visual-perceptual ability and eye-hand coordination. The interpreter of the test also indicated that Julie's learning disability significantly affected her ability to work with written and oral language as well as her writing speed and accuracy. Julie also had problems encoding information which affected spelling, vocabulary and organization of written ideas, skills that are essential for college success.

The First Year

Julie received extensive transition counseling services during her junior year in high school from the Project. Her individual goals included: (a) participating in two out of five summer sessions offered by the transition staff on various aspects of transition (Choosing the Right School for You, Exploring Career Interests, Learning What to Expect in a Postsecondary School, Understanding Your Strengths and Weaknesses, Planning Accommodations in School and Advocating For Yourself); (b) reviewing high school course selections for senior year to ensure appropriateness for college preparation; (c) checking to see whether the Scholastic Aptitude Test (SAT) was required for her chosen postsecondary institution and, if so, arrange for an adapted SAT; (d) participating in study sessions for the SAT; (e) reviewing postsecondary programs available and special services available; (f) choosing sites to visit; (g) reviewing career goals after vocational evaluation from Division of Rehabilitative Services (DRS); (h) improving vocabulary and general knowledge through high interest reading; (i) increasing understanding of her individual strengths and weaknesses; (j) planning to visit the veterinary technician program in Waseca, Minnesota; (k) considering taking a class through the Minnesota Postsecondary Options Act in a local Technical Institute or Community College; (l) improving study skills; and (m) completing college and financial aid applications.

The Second Year

During the summer months before her senior year in high school, Julie not only attended the project's summer sessions, but she also worked in the office of her DRS counselor doing general office work, and obtained a vocational assessment. Julie expressed to her transition counselor that she felt very discouraged when she was told during her vocational evaluation that being a veterinary technician would be an unrealistic goal because of her physical limitations. She reluctantly agreed to look at other career options, and her transition counselor provided numerous career brochures from various local technical institutes and 2-year colleges. She encouraged Julie to make appointments to visit the schools, and to ask specific questions about their programs and what specific services might be available.

Transition objectives for Julie's senior year included: (a) choosing a postsecondary school by obtaining information about four postsecondary schools, visiting at least three of them, making a list of questions to ask on a site visit, and listing and/or comparing the support services available at each school; (b) implementing career exploration by identifying four career areas for further exploration based on interests and strengths, planning and completing activities to explore each career (e.g., job shadowing, interviewing); (c) getting into the school of choice by meeting with the high school guidance counselor to discuss college choices and application procedures, obtaining applications, filling them out, role-playing the college interview with transition counselor, and studying for the SAT; (d) financing college by obtaining and completing appropriate financial aid forms, meeting with the DRS counselor, checking at least four sources for scholarships, and completing scholarship applications; (e) exploring postsecondary options by taking a class through the Postsecondary Option Act during the third high school trimester; and (f) implementing accommodations by determining study strategies or accommodations to complete reading assignments in English, Economics, and Psychology, and continue to use them as needed.

Julie followed through with four site visits to local technical colleges, community colleges, and universities. She also followed through with studying for the SAT on the computer. She expressed new interest in a travel advisor program and in architectural drafting. During her senior year, Julie received special education services for both her learning disability and her physical disability. She also made plans to move into an accessible apartment with a girlfriend in February, 1988.

Julie was hospitalized in mid-December because she broke both arms and suffered a ben pin in her leg as a result of a fall from her wheelchair. She required surgery and was hospitalized for approximately one month. When she was able to go home, she needed to have a home health aide and attended school only half-days. Julie was beginning to consider attending a nearby community college for at least the first year after high school while she sorted out what she wanted to do. Julie and the transition

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counselor discussed how she could obtain applications and financial aid forms. Julie's parents were able to assist her in completing the necessary forms.

Julie returned to high school full-time in February and moved into her own apartment as planned. The transition counselor consulted with Julie, the special education staff, and outside agencies on thirteen occasions during this month. The transition plan was updated and revised. Julie and her transition counselor discussed taking a course through Postsecondary Options during the spring semester at the nearby community college. Some arrangements were made by the transition counselor to prepare Julie and the staff at the community college concerning the postsecondary option course and the courses Julie would take there in the next year.

During March and April, Julie registered for a Biomedical Terminology course at the community college as a postsecondary student. After discussing the course with the instructor and the project's postsecondary transition counselor, Julie was cautioned that it was an extremely fast-paced course, was not intended as an introductory college course and would require a lot of independent work. The transition counselor suggested that she take a look at the textbook and talk directly to the instructor before making a final decision.

Julie continued her spring courses in high school and although she had many responsibilities, she felt positive about the job she was doing both at school, work, and with her living arrangement. She received a "B" on her first Biomedical Terminology test at the community college. By May, however, Julie was experiencing difficulty with the postsecondary course. The Biomedical Terminology instructor contacted the transition counselor and stated that Julie needed to study between nine and ten hours per week to do well, and there were no taped accommodations available for the course. He also suggested that Julie might want to withdraw from the course immediately so that it would not affect her GPA. After discussion of the situation and possible options, Julie decided to withdraw from the class.

Exiting High School

Julie and her transition counselor concluded the senior year by discussing summer plans and developing a transition "Exit file". This file contained Julie's IEP, Transition Plan, letters of recommendation and support, documentation of her learning disability, and a list of accommodations that could be needed. Julie would be able to use this file to facilitate a smooth transition into her postsecondary school.

The Third Year

Julie began the third year of the Project in July, 1988. The postsecondary transition counselor contacted her to set up a meeting for registration at the community college in early August. Julie informed her counselor that she had already contacted the

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community college, taken the required Skills Assessment at the community college, and expressed excitement about beginning classes in the fall. Julie, with assistance from the postsecondary transition counselor, completed registration in early August and discussed possible accommodations that might be needed for her courses. She requested a notetaker for English and Health, but she did not think she would need any texts taped for fall. In fact, Julie stated that she had tried using taped texts and did not like them. The transition counselor arranged to have the math computer fee and text books paid for by DRS, as her DRS counselor was very supportive of Julie's decision to attend the community college.

Julie bought her books early and previewed them prior to classes starting. Her excitement remained high even after some last minute course changes and some difficulty in getting her financial aid check. The transition counselor gave Julie several names and phone numbers of people on campus and at other agencies to contact if there continued to be problems with financial aid.

After classes began, Julie and her transition counselor met to discuss the courses she was taking. Julie enjoyed all of her classes and didn't find them to be too difficult. There did not appear to be a need to tape texts at this time, but Julie agreed to keep this in mind as an option for the future. Julie was utilizing a notetaker in Health and English and using the computer for Math. The transition counselor offered some suggestions for reading: long- and short-term goals for studying were established. Julie was encouraged to talk with her teachers regarding extra time needed for taking exams.

Postsecondary Progress: Fall

Meetings in October revealed that Julie continued to be progressing very well. She reported to be averaging a "B" in English and continued to like all her courses. She was following through with the study strategies that were suggested and with the goals that were set with her transition counselor. Julie joined the Student Senate at the community college and became Student Activities Director. The purchase of an Apple IIc computer printer was discussed as a possible aid to assist with written assignments especially because spelling, punctuation, and speed were difficult areas for Julie. Julie already owned a computer so the transition counselor spoke with the DRS counselor who agreed to research the possibility of assisting with the purchase of a printer. Julie said that she was having some difficulty keeping up with all the reading in her Health class. The transition counselor reviewed the steps in SQ3R (Survey, Question, Read, Recite, Review), and set two short-term goals with Julie: (1) keep track of study times and work completed by recording them in a notebook, and (2) use a highlighter to underline important concepts in the text.

Julie expressed that she continued to be pleased with her progress during her November meetings. The "B" average in all classes continued and she had been asked

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to work at the Upward Bound office as a secretary. She also became involved as a cheerleader for the community college basketball games.

Accommodations And Strategies

In December, Julie discussed the difficulty she was beginning to experience in her English class, specifically in spelling, punctuation, and not having enough time to correct errors or to complete writing assignments. The transition counselor worked with Julie and they developed a number of strategies and accommodations for her to utilize which included: (a) speaking directly to the instructor, explaining her disability and needs; (b) requesting appropriate accommodations in class, such as utilizing a notetaker; and (c) requesting services from the Learning Center, such as tutoring and assistance with writing projects. In addition, the transition counselor offered to speak with Julie's English instructor to explain her disability and offer assistance.

Postsecondary Progress: Winter

Julie missed several weeks of school in January because of bronchitis. She had been doing passing work in English but had not followed up with utilizing the tutorial assistance from the writing specialist. Julie continued to be active in student senate, choir, and cheerleading and was working twenty hours per week in the Upward Bound office.

Some of the strategies that Julie used in her courses during winter quarter included keeping a list of difficult vocabulary words, using the dictionary for definitions and writing them on notecards. The transition counselor referred Julie to a math tutor as she stated that she was having difficulty understanding Algebra and was falling behind in class. A goal was set to help Julie develop a study schedule and establish study goals. Although Julie was having some difficulty this quarter, she expressed a positive attitude about her progress and decided to consider a career in Math, possibly as a teacher.

In March, Julie was uncertain about her status or grades in English, even after consulting with the instructor. The transition counselor talked with the instructor who expressed some concerns about Julie's progress. The instructor stated that although Julie was outgoing, assertive, and had the potential for academic success, several major assignments had not been handed in. Julie did not write down or follow directions for papers; she did not make the recommended changes in her writings; and there was little follow-through. She felt Julie was not taking the class seriously and suggested that she repeat the class prior to taking the next English course.

When this was discussed with Julie, she agreed that she had not put enough effort into English and that because of other things going on in her life (school activities and personal problems) she had let her academic responsibilities slide. Julie also stated that

it was often difficult for her to understand verbal directions and she had never asked for clarification. The transition counselor suggested some self-advocacy skills and assertiveness strategies Julie might use in this situation. Julie agreed to try these suggestions and to consider taking the class again.

Postsecondary Progress: Spring

Julie started spring quarter registered in four courses: Choir, Math, Speech and Sociology. Prior to beginning spring quarter, Julie was encouraged to speak with the Sociology instructor to inform him of her learning disability and to discuss accommodations (extra time for tests, special testing arrangements and the use of a notetaker in class). She was also encouraged to purchase the textbook early to get a head start on the reading. Julie did not follow through with any of these suggestions. At the beginning of the quarter, she was excited about public speaking and choir, and was again encouraged to seek tutoring assistance early on for Math. Due to the large amount of reading required in Sociology, taped texts were suggested, but Julie did not want to use them. The transition counselor encouraged Julie to highlight main ideas and use flashcards for important terms. Julie promised to keep track of her study schedule for 1 week.

When winter quarter grades were received, Julie and her transition counselor were both surprised to see an "F" in Math 109. Julie agreed to discuss this with the instructor because she thought she had done much better. At first, she was unwilling to consider withdrawing from Math 110, even though she received an "F" on the first test of the spring quarter. But because it is a prerequisite for the higher level class, Julie was advised to withdraw from Math 110 and retake Math 109 in the fall. She would also work with a tutor from the beginning of the course. She stated feeling a sense of relief as now she could devote more time and energy to her other three classes. Because Julie's credit completion was 18 out of 30 credits attempted, with a cumulative GPA of 1.6, she was placed on the Warning component of Academic Probation.

Julie was feeling positive about Speech and Choir and reported some difficulty with Sociology, although it appeared to be going well. Extra-curricular activities kept Julie very busy during the spring. She continued to be active in student senate, directed a talent show and continued her twenty-hour part-time job.

Julie's Future Goals

Julie's goals for the future were unclear and undecided as she completed her first year at the community college and her final year with the Project. She stated in her final interview with the Project staff that she might take the Math 109 course during the summer session, or wait until fall quarter. She did intend to return to the community college in the fall but did not plan to graduate from there. Rather, she would transfer

the credits earned at the community college and apply to a 4-year college, such as one of those visited on earlier site visits. Julie felt her strengths and interests continued to be in the areas of math, science and computers. She admitted that she sometimes got pretty caught up in extracurricular things and didn't do very well in school.

Counselor's Future Goals For Julie

Finally, it was recommended to Julie by the project transition counselor that she, (a) re-examine her academic goals and vocational choice, and her personal motivation/commitment to pursuing them; (b) set specific manageable goals for the upcoming year; (c) continue to apply study strategies which she had learned in order to prepare effectively for exams and to capitalize on her academic strengths; (d) realize and accept her academic strengths and weaknesses and select future courses accordingly; (e) make full use of accommodation options designed specifically for individuals with learning disabilities; (f) practice self-advocacy skills by speaking with instructors early in the quarter, before problems arose; and (g) manage her time more effectively. Julie was referred to the support services counselor at her community college for further assistance. Because the federal funding for the Project ended in 1989, no further follow-up has been conducted.

SUMMARY

Both the quantitative and qualitative data gathered during the 3 years of the LD Transition Project clearly point to a number of recommendations that should be beneficial to others who provide services to students with learning disabilities. The following recommendations gleaned from this case study are offered for consideration.

(1) There is a pressing need for more longitudinal research to be done which applies to the transition process for adolescents and adults with learning disabilities. One of the few current studies in this area is being carried out by the Stanford Research Institute (Wagner, 1989). The National Longitudinal Study of Secondary Handicapped Students was created to follow 8,000 students with disabilities from ages 13-21. Preliminary results show many sobering trends directly related to Julie's experiences. For instance, 25% of the students with disabilities in the Stanford study were drop-outs. Only 15% of the students with learning disabilities have gone on to postsecondary education after high school graduation. Obviously, this study, and others like it, are necessary to further illuminate facets of the transition process.

(2) Julie's case study emphasizes the need to "front-load" the system by providing transition services early on in high school. The LD Transition Project staff saw the necessity of encouraging interagency cooperation, working closely with parents, and focusing on real life skills needed after high school graduation. Obviously, the emphasis on these skills goes beyond the typical secondary curriculum of academics

traditionally used to earn a high school diploma. We firmly believe that this shift in secondary curriculum is integral to the successful transition of adolescents with learning disabilities into adulthood. This new transition emphasis moves the focus of service delivery and academic instruction in both secondary and postsecondary settings from merely "passing classes" to components that will affect adults with learning disabilities throughout their lives. Examples are: (a) emphasizing generalizable skills, such as using accommodations equally applicable to academic, vocational or social environments; (b) increasing disability self-awareness; (c) giving an equal emphasis to psycho-social issues as well as academic problems; and (d) shifting the responsibility for success to the student, as well as the service provider or the instructor. All of these components will require continued exploration.

(3) Continuous life-long support for individuals with learning disabilities must be provided. Both the professional literature (Cronin & Gerber, 1982; Hedberg, 1987; Kroll, 1984) and our own work at the University of Minnesota clearly show that the transition process may be a life-long one. Julie's case study illustrates this well. It is apparent from observing Julie's struggles and successes that each individual with disabilities may have his/her own unique timetable, but all will need some type of support at some time or another. Current information is beginning to emerge from interviews with this population who indicate the need for information on resources and support on the job for their disability (Brown, 1984; Clark, 1980; Crimando, 1984; Hedberg, 1987). This support must be flexible enough to allow LD individuals to "drop-in" or "drop-out," requesting services as they see fit.

(4) We must continue to explore transition issues that relate to adults with learning disabilities. One clear theme emerges from Julie's case study: Transition is not a "one-shot" set of isolated techniques, but a process full of overlapping, complex factors. Consequently, we as service providers must continue to incorporate knowledge and support for issues than are relevant to adults, and not only children. We recommend that issues such as chemical dependency, financial independence, human sexuality and pregnancy, marriage and family needs, social isolation, older students returning to school, and unsuccessful employment histories continue to be explored as part of the life-long transition process.

(5) Secondary and postsecondary service providers should prepare individuals with learning disabilities for independence. It becomes apparent when reviewing the progress of individuals with learning disabilities that it is vital for these students to receive personalized support which fosters both self-advocacy skills and disability self-awareness while they make the crucial transition from secondary settings to adult life. Experiences with students like Julie have underscored the fact that specialized information must be taught, because even though many individuals with learning disabilities have many strengths (such as average or above intelligence), they often don't develop these skills by themselves.

A great deal of time and energy in our Project was focused upon fostering self-advocacy skills and disability self-awareness in many different ways in a variety of settings. As a result, Project participants: (a) have the knowledge and appropriate skills to pursue postsecondary education and/or job training; (b) can practice pinpointing and communicating their needs; and (c) are able to listen, understand and accept feedback from peers, instructors, parents, supervisors, and others in their everyday environment. Best practices (Brown, 1984; Dalke & Schmidt, 1987; Hedberg, 1987; Ness, 1989, Seidenberg, 1986) demonstrate that programs which build in a bridge of support from high school to postsecondary education and/or employment include these components: teaching self-advocacy skills; visiting postsecondary facilities; connecting students with adult and community support services; and developing appropriate educational service plans (IEPS or ITEPS). To assume that individuals with learning disabilities will "pick-up" this critical information on their own is both naive and inaccurate, and a disservice to the student. To support this belief, several large longitudinal studies are now underway with students with mild handicaps to study the relationship between dropout rates and postsecondary retention patterns and self-advocacy skills and disability self-awareness (Johnson, 1989; Wagner, 1989).

(6) Collaboration with secondary personnel is critical to enhance transition. Our experiences have clearly taught us that transition cannot, and should not, be developed in isolation. If the transition process is to be successful for both students with learning disabilities and the service providers who work with them, collaboration must be continuous between secondary staff and postsecondary staff and/or employers. As Julie's case illustrates, if communication and sharing of information is encouraged among professionals, everybody wins. These benefits may accrue through collaboration: (a) students and parents are introduced to staff and services available in postsecondary facilities in a supportive, comprehensive manner; (b) the groundwork is prepared for students as they exit secondary education and enter postsecondary education and/or employment; (c) assessment data are coordinated to avoid costly duplication of staff and student time and energy; (d) information is synchronized so that everyone can pull together diverse bits of knowledge from many sources and then focus it on specific goals; and (e) the "handing-off" of students with disabilities is expedited by providing an exit file, which includes a description of the student's individual strengths and weaknesses, past disability accommodations, test scores, disability documentation and contact names and phone numbers.

In summary, if the field of learning disabilities is to continue to grow as children with learning disabilities mature into adults with learning disabilities, everyone involved in this journey needs to participate in dialogue and problem solving. Julie's case study is illustrative of an approach leading to an exciting and successful future for many individuals with learning disabilities.

CHECK YOUR PROGRESS

SUGGESTED ASSIGNMENT

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POINTS FOR DISCUSSION / CLARIFICATION

After going through the unit you may like to discuss or seek clarification on some points if so, please mention the points below :

Points for discussion

Points for clarification

BLOCK – 2 : INTELLECTUAL DISABILITY: NATURE, NEEDS AND INTERVENTION

UNIT - 1 : DEFINITION, TYPES AND CHARACTERISTICS

STRUCTURE

1   Introduction

2   Objectives

3   Definitions

4   Summary

5   Revision

6   Assignment/Activity

7   Points For Discussion And Clarification
8   References / Further Readings

1.1 INTRODUCTION

Education is very important in life. It can be conceptualized as learning and attainment of skills of utilizing knowledge for progress and development. In general, it links the individual to the mainstream of development of society and nation as well. But, in our human society, there are some people who cannot access such general education for progress because of some difficulties. Their problems of accessibility comprise special talents in sensory, cognitive and physical areas of functioning. It requires special care and training for survival of such people and their contribution in mainstream of headway. Education of such people is called special education. As a definition it can be said that the field of special education studies those people who are different from overage normal people.

In this section of special education we will attempt to find out its inception in the past expansion with subsequent temporal changes and current position in India.

The field of early intervention is vibrant, generating expectations that systematic, comprehensive, experientially based interventions will alter developmental trajectories and prevent secondary complications. In this article, the existing knowledge base in the field is reviewed. It emphasizes the importance of an overall developmental framework, what is known through intervention science and the emergence of guiding principles for programme design and development. This is followed by a discussion of future prospects for improving early intervention outcomes in four areas. First, the

importance of designing studies that provide information about carefully defined subgroups is discussed. This issue of specificity of outcomes is crucial in order to determine boundaries for effectiveness and to direct attention to areas of special concern. Second, prospects for translational research are discussed with particular reference to our knowledge of the core developmental processes affected. Third, the need to focus on the increasingly apparent mental health and social competence difficulties of even young children with intellectual disabilities is considered. Finally, the complex problems and potential solutions associated with the transfer of model intervention programmes to communities as part of early intervention systems are described.

Early intervention is playing an increasingly prominent role in the field of intellectual disabilities, and I am pleased to have this opportunity to discuss our current knowledge on this topic and to consider prospects for the future. Before doing so, however, it is important to put the early intervention enterprise in context and to consider the challenges it faces. The extraordinary potential of intellectual disabilities in young children worldwide is clearly a major concern. Realistic estimates suggest that approximately 780 million children may be affected between birth and 5 years of age (Olness 2003). This figure represents the increasing number of identifiable biological and environmental factors associated with intellectual disability as well as those conditions that place children at risk. Beyond the increasing number of genetic and infectious causes of intellectual disabilities that are now recognized, the list of well-documented biological conditions that can lead to intellectual disabilities includes malnutrition, especially micronutrient deficiencies, head injuries, lead poisoning, low birth weight, malignancies, and numerous others. The corresponding list of potential environmental causes of intellectual disability is equally extensive and includes the pernicious effects of poverty, child abuse and child neglect (see Guralnick 2000). Although these environmental causes can and do make independent contributions to intellectual disability, they often operate in conjunction with biological conditions (Msall et al. 1998; Fujiura & Yamaki 2000; Park et al. 2002). Moreover, when considering potential causes or risk factors, it is the cumulative effect that produces the greatest threat to young children's intellectual development (Sameroff et al. 1987; Burchinal et al. 2000). The number of young children likely to be affected by intellectual disability worldwide is eclipsed only by the diversity and complexity of the developmental patterns. Nevertheless, the expectations are quite high that much can be accomplished during the first 5 years of life through the thoughtful implementation of systematic, comprehensive, experientially based early intervention programmes (Guralnick 1997a, 1998). More specifically, it is anticipated that early intervention will enhance the development of young children already exhibiting intellectual delays (of known or unknown aetiology) both by altering their developmental trajectories and by preventing secondary complications from occurring. For children at risk of intellectual delays because of a variety of biological and/or environmental conditions, it is expected that these delays can be prevented entirely or their magnitude minimized diversity and complexity of the developmental patterns. Nevertheless, the expectations

are quite high that much can be accomplished during the first 5 years of life through the thoughtful implementation of systematic, comprehensive, experientially based early intervention programmes (Guralnick 1997a, 1998). More specifically, it is anticipated that early intervention will enhance the development of young children already exhibiting intellectual delays (of known or unknown aetiology) both by altering their developmental trajectories and by preventing secondary complications from occurring. For children at risk of intellectual delays because of a variety of biological and/or environmental conditions, it is expected that these delays can be prevented entirely or their magnitude minimized.

These admittedly high expectations on the benefits of early intervention rest on a number of grounds. Certainly, compassionate and pragmatic rationales can be invoked, especially given the central roles parents play in the development of their young children. Clearly, it is essential to be able to address the needs of families during this most stressful period and to focus on issues that support the adaptations that are and will be necessary to strengthen those families and to maximize child development (see Bailey et al. 1998; Guralnick 1998). Recent advances in the scientific underpinnings of early childhood development have also provided a rationale for these high expectations, suggesting that the early years may well constitute a unique window of opportunity to alter children's developmental trajectories. A number of neurobiological and behavioural mechanisms have been identified in support of this rationale (Nelson 2000; Bailey et al. 2001). Taken together, it is anticipated that a substantial investment in systematic and comprehensive early intervention will generate long-term bene- fits for children and families, benefits which will be sustained over time and are cost-effective (see Guralnick 2004a). With this as the background, I address the following topics. I begin by discussing what appears to be a general acceptance, by our field, of an overarching developmental framework that helps us understand the actual mechanisms through which various forms of early intervention operate to produce their effects. This overarching developmental framework provides guidance for implementation approaches and, importantly, is relevant to children with and without disabilities. I follow this by discussing the current status of intervention science in this area. This analysis is intended to tell us what we can reasonably expect to accomplish through early intervention programmes given our current knowledge, drawing primarily on information provided by randomized clinical trials. Finally, I consider the future prospects for early intervention focusing on four areas. First, I address how the specific impact of early intervention may relate either to certain elements of the programme or to specific subgroups of children and families. This 'specificity' issue is one which is receiving considerable attention in the field and holds promise for dramatically increasing both our knowledge base in general and our ability to reduce the wide variability that occurs in response to early intervention programmes. Second, building on the emerging knowledge from neuroscience and developmental psychology, I consider the prospects for 'translational research' with an emphasis on incorporating this knowledge into various curricular approaches. Third, I address the challenge posed by the mental

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health and social competence needs of young children with intellectual disabilities, an often underemphasized and overlooked domain. Fourth, I consider the complex issue of systems development in early intervention as a means of ensuring that all communities have the ability to implement state-of-the-art early intervention programmes. Current Knowledge.

1.2 OBJECTIVES

- The description of the historical development of special education will make you able to:

- Understand the meaning of special education

- Frame and conceptualize the gradual development of special education.

- Find out important statutory means that would help you to create new ideas And scientific techniques in this context.

1.3 HISTORICAL PERSPECTIVES AND CONSTITUTIONAL OBLIGATION

In fact, development is a plant of slow growth. Similarly, the plant of special education has been nourished since a long gradual change in interests, attitude and behaviour of people, which made education essential, accessible and advantageous for people with different disabilities.

In the beginning the disabled was protected by the parental instinct and also made able to cope with disability. All these were through the informal education and unscientific methods they knew. However, in case of external difficulty or lack of means parent's instinct of self- protection abandoned the disabled. Only those survived who were able to resist the unpredictable change in their environment. This period is known as *'instinctive Darwinism'*. In course of time, there was a significant change in people's attitude and they viewed disability as a punishment of God. It was based on the *'Sin theory'* ; There fore the result was expulsion of the disabled from society. It was the *'Social Darwinism'* phase.

The modern period of special education emanated from the *'Educational Darwinism'*, which meant for attitudinal change in *'Social Darwinism'* in to education for disabled. But there was no as such provision of education for them. Rather the attitude was very

simple and full of sympathy, i.e., come if the person can, try to cope if he/she can, attempt for learning if they can.

There is a broad light at the end of every tunnel. So this period laid the foundation of organized care and education with the emergence of humanity and charitable organizations of people in many corners of the world. The legislative provisions, development of asylums, training canters, hospitals and other special institutions were tremendously emphasized and thought up, initially more for manifest disabilities. This in turn led to bipolar classification of handicapped and non-handicapped persons. The handicapped were thought of a distinct category, which helped the enterprise of integrated special education.

In addiction, it stimulated the thrust on normalization of such handicapped people, in the form of deep consideration of needs of special education and mainstreaming of disabled.

1.3.1 The Ancient and Medieval World Scenario

The earliest reference of positive attitude towards disability was the therapeutic papyrus of Thebes dated back in 1952 BC. Although this was regarding the management of mental retardation, however, it is considered as a beginning of habilitation or rehabilitation, which pawed the way of education for, disabled. There after some more milestones were achieved but not in relation to the education and training of disable people Like, in the12th century, King Henry II in England enacted first legislation in this context in which people with disability (i.e. M.R.) were separated from people with mental illness but both were kept in hospitals. In 1330, King Edward III converted hospitals into places of shelter and entertainment in Bethlehem. Once again the dark phase started and there is no evidence of significant work for the betterment of disabled up to the middle of the 16th century. But a ray of hope was again seen in the latter part of the 16th century when Pope Gregory I issued a decree that instructed faithful assistance to the crippled people. In 17th century the churches come into power and took the accountability of care shelter and training of handicapped persons. Thus, till this age development towards education and training of disabled persons was very slow and patchy.

1.3.2 Modern world Scenario

Scrutiny of historical events reveals that the real and systematic journey of special educated started at the outset of the 19th century. It took place firstly in France where. Jean Marc Gaspard Itard (1774-1838) was the first person who initiated systematic training to educate children with mental handicap. He picked up a wild boy of Aveyorn near by paris and tried to educate him becoming partially successful. He emphasized physiological and moral education and incorporate a general training programme which included muscular, nervous and reflective physiological functions. He provided the importance of rapport between teachers and pupils, behaviour

management and education as per the current level of children's functioning which are in practice of special education today, Itard wrote a book named 'Idiocy and its treatment by physiological methods' in 1866 which become seminal source of teaching with mental handicap in the record half of the 19th century. After Itard his student Seguin kept the lamp on with collaboration madam Montessori and founded many special schools. Seguine concentrated on educating persons with severe and profound mental handicaps, on the contrary, Montessori worked exclusively with educable children with other handicaps besides mental handicap. She worked on teaching basic academic skills, e.g., reading, writing, arithmetic and sensory training.

Infact, the essential precondition for systematic provision and policy of special education is compulsory mass education. This was ardently realized and accepted firstly in France than other European countries like Britain, Germany and even the USA. That's why France has been the leader of special education. Britain was record on the winners pad. In 1838, the London society for Teaching the blind to read opened a school in London and subsequently in Nottingham and Exeter also. Since, for much of the 19th century, there was no legislative provision in English low for distinguishing mental handicaps from mental illness, therefore, children with severe mental handicaps were kept in lunatic asylums. In 1847, the first separate institution was opened for mental handicaps named the Asylum for Idiots at Park house, High gate. Meanwhile, the first residential institution of comprehensive treatment for children with mental handicap was established by Hogan Guggenbuhl (1816-1863) in 1841 in the mountains of Switzerland.

As the compulsory mass education was comparatively delayed in Britain, Forster, in 1870, brought the Education Act (also called Forster's Act) to stimulate people towards it. This act was committed to provide schools for the mass of the populace. The same was repeated in the education Act of 1880. But unfortunately it was poorly successful because it was not compulsory to attend. Regular school attendance took a long time over several generations to be consolidated. The main reason behind this success was the collapse of the child labour market in the inter war depression and became blessing in disguise. But very soon it was felt that getting as many children into school raised as many problems as it solved. Many practical serious difficulties were coming in teaching poor, undernourished and sick handicapped children. In fact, teachers were following very crude, rigid and unscientific methods of classifying normal and handicapped children. It affected the performance of the children very badly. Since the bulk of the government grants depended upon the performance of each child, therefore the school authorities became compelled to look into this issue thoroughly. For the purpose around early 1880s speculative discussions were triggered off involving neuro- physiologists also, about the ways in which overwork among normal children and adolescents might lead to brain strain and damage. Hence, undernourished or half-starved children would be more vulnerable to such damage agreed upon by them and a special care for such was felt. In these very years many

voluntary organizations concerned with the education of the blind and the deaf came into action and demanded state aid.

Although many authorities began to establish special classes for various kinds of handicaps during these years of 1880s but their government grant remained unclear. Later on the Conservative Government felt too much pressurized and took some favourable actions. At last, 1885-86 the government set up a Royal commission, chaired by Lord Egerton, with following terms of reference:

- To report upon the condition of the Blind in UK.

- The various systems of education of the blind.

- Elementary, technical, professional and many others along with existing institutions for the purpose.

- The employment open to and suitable for the blind.

- The means by which education could be extended so as to increase the number of qualified blind persons for such employment.

- Similar project for the Deaf and Dumb.

The Egerton Commission was reported in 1889. They recommended compulsory education for blind children in the age group of 5-16 years, and deaf children from 7-16 years. This was to be provided by the local education authority. In this context the Braille method of teaching was favored most, though, the use of raised design on Roman type was also recommended by somebody. Similarly, methods of sign and manual and oralism in the teaching of the deaf were recommended.

Despite such achievements the difficulty of dealing with mental handicap still existed. Although Dorothea Dix, Samuel Howe and Hervy Wilbur developed many services for the mentally handicapped in the USA around mid of the 19th century, their efforts helped in the formation of AAMD in 1987 the precise diagnostic difficulty was still alive in Britain. Many doctors were relying on physical signs, such us fits, vacantly staring eyes, and over-large heads etc. evidences of the existence of mental handicap. Eventually, the commissioners identified three categories of mentally handicapped children-idiots, imbeciles and the feeble- minded. They, further, argued that children in the categories of imbeciles and feeble minded were educable and should be provided special schooling by local education authority.

It was the decade of 1891-1900 when the Egerton Commission came up with the first legislation for special education. The background of this action was prepared in early years of the second half of the 19th century.

This was the time of global social change and as a result of which the social network was disrupted and put under great strain with change from rural society to an urban society. Darwin's theory of survival of the fittest (1859) was increasingly being used

to describe human affairs. As a result those who were unable to support themselves were separated from the productive labor force. People developed an idea that people with less intelligence and undesirable characteristics had procreated more than the fittest which would eventually be the reason of deterioration in intelligence and survival of the general population. It led to an organization called the Eugenics Society to seek ways of preventive degeneration of the human species and controlling related genetic factors.

Thus, having felt very pressurized from the populace and to keep the disabled abreast and associated with national mainstream of development the Egerton Commission passed on Act in 1893 requiring education authorities to make special provision for blind and deaf children and authorized some additional grants. The Eugenics Society's pronouncement had powerful impact on the elementary Education Act of 1899 which empowered authorizes to set up special schools for handicapped (defective and epileptic children) children and raised their leaving age to 16 yrs. Besides, it allowed the transport to be provided for them and boarding out if required. However, these provisions were recommended only and were dropped by the powerful advocates for total care of handicaps.

Earlier, care for mentally handicapped people were not considered seriously. For the first time legislative provisions were made for them in this very year of 1899 and it allowed local education authorities to create special classes and schools and schools for those mentally handicapped deprived and incapable of receiving proper advantage from the ordinary schools of normal children. By 1903, this commission of London and so other authorities were making some provision for mentally handicapped children. In 1904 the Royal Commission was given the task of looking at the needs of mentally 'defective' children. Tremendous information was collected and useful recommendation was given in 1908. These recommendations were as follows:

- Mental defectives needed protection from the worst or ill elements of society and from their own instinctual responses as well which declared them unfit to take part in life's struggle and survival

- Absence of social condemnation was sought because it affects mental state of the individual, which was the core factor of their claim for help from the state.

- It was sought important that all mental defectives be definite and should be brought into contact with public services.

- A central authority was necessary to work in association with powerful local bodies, which would assume responsibilities for individual cases.

For the purpose, the formation of a central board was recommended with the inclusion of legal, medical members along with one woman at least. By this time, the progress in special education branched out in other countries also. Ovide Decroly in Belgium developed an effective curriculum for children with mental retardation. He established

schools, which was recognized as models in entire European continent. Another important incident that brought a drastic change was the development of intelligence tests by Alfred Binet and Simon in France in 1905. This was the first objective test of measuring intelligence of children. In 1907, legislation allowed local authorities to spend money on school meals. In 1908, medical inspection of all school children became compulsory.

In 1913, the same Royal Commission passed the Mental Deficiency Bill (MBD) which recognized the impractibility of life time institutionalization for disabled people and decreed that a sympathetic guardian and favorable environment approaching to normal life was required more appropriately. This Act also required that each local authority was supposed to set up mental Deficiency Committees which would be responsible for the ascertainment of all handicapped people to be dealt with and the provision of suitable institutions as well. They also had the responsibility of appointing officers for the supervision of the care of the people in community. These duties covered a wide range of activities, i.e., from conveying patients to and from institutions to visiting guardianship cases of their homes. Later the committee's works concerning the ascertainment of children for admission to special schools were linked with the Education Act (Defective and Epileptic children) 1914. In 1913 the London Country Council Education Committee made the first- ever appointment of a psychologist named Cyri Burt to advise on the selection of children for special classes and schools.

Almost for one decade no significant step was taken towards the special education and training for disabled persons during and after first world war started on 1914. The first post war developments come into limelight when Newman in 1923 set up a specialist committee to investigate the variations in local authorities estimates of the incidence of mental deficiency. They surveyed 6 sample areas and found 33000 handicapped population including all areas of handicaps.

Here after, the committee engaged in a discussion of mental defect in more detail. Finally, their practical recommendations were full of changes. Infact, local education authorities had come to regard children with I.Q.s of below 70 as certifiable either for segregation in special schools or for referral to the local mental deficiency authority as in -educable. The committee wanted only children with I.Q.s of 50 or under to be referred to the care of the local mental deficiency authority. The committee added further that children with I.Q.s between 50 and 70 should have been grouped with those of between 70 and 80 labelled as dull and backward. This new group of retarded children should be given special care of the ordinary school not in a special school.

In the similar fashion, subsequent governments for teaching blind and deaf children conducted many investigations. They concluded that both partially deaf and partially sighted children needed different treatment from that provided for the wholly deaf and the wholly blind and they felt this could best be given within the normal school system

rather than in special schools. Unfortunately, the government authorities to implement these recommendations after the Second World War of 1939-45 did nothing. In between in 1932 the Birmingham education authority set up a child guidance clinic in convection with special schools. The funds come in the beginning from private sources. But by 1935 the authority persuaded the Board of Education to sanction the fund in maintenance of the clinics but after 1939 this plan and its operation flopped lacking harmony.

After the 2nd world war breakthrough in special education was almost confined to the USA and Britain to a big extent. In 1950, America came in to focus with some noticeable changes in the field of special education. Firstly, there was a new national policy for the people with special problems. Another was the foundation of National Association for Retarded Children (NARC) whose members were mostly of parents of children with mental handicap. Thirdly, Wolfensberger supported principle of normalization with pioneer contribution in the USA, which was originated in Scandinavia. People of the USA were affected by the British break through in this field, so, there was a great emphasis seen on community-based programme to meet the needs of people with handicaps. In Britain the long silence was broken once again when the Mental Health Act come into existence in1959. This time there was a great deal in the act about the protection of rights of patients as well as disabled people. The most important point was unlawful for man to have sexual intercourse with mentally defective woman. Later on, in this very Act of 1983 the term 'mental deficiency' was changed to 'mental handicap'. In 1973 the special education took an important move in terms of providing children with disabilities with an equal experience to that of their peers who did not have such problems. In many places it led to the creation of two or three different types of school targeted at different degrees of disabilities. Some staffs were provided mixed training as instructor of the occupational centres and as being teachers with special qualifications in special educational needs.

In these very early years of 1970s, the USA come once again on the front. The major achievement were the amendments to the Vocational Rehabilitation Act (PL-93-112) and passing of Education for All handicapped children Act (PL 94-142). The later was replaced by the individual with Disabilities Education Act (1990). The new act was comprised of 3 major additions:

- Language alteration-means, child to individual, handicap to disability, person first and disability next to be emphasized.

- Every individual or student with disability (14-16 yrs.) could demand an integrated education programme for transition to work

- Additional categories- i.e., autism and traumatic brain injuries were included.

Besides, the Americans with Disability Act (1990) stressed on civil rights of legislation for persons with disabilities. Subsequently, non-discrimination in a broad

range of activities was included. The pace of the development provided more sanguinity when the United Nations Organisations (UNO) declared the year of 1981 as an 'International year of Disabled persons and subsequently the period 1983-92 as "United Nations Decade of Disabled persons" which aimed at development of societies in which disabled persons live and enjoy an equal share in the improvement of living condition. This equality included education, independence and participation in Economic & Social survey of Asia and the Pacific (ESCAP) declared the period of 1993 -2202 as the 'Asian and pacific Decade of Disabled person which has provided boost to the awareness squarely pertaining to the problems and betterment of disabled persons through providing education opportunity and training. Since then 3 pilot projects have been implemented in New Delhi, Beizing and Bangkok in order to create a barrier free and heartening atmosphere for them.

1.3.3 The Indian Scenario

When you would pay surveillance to the development of education for the disabled in India, realize that it was the oldest in the world and its root was in the 'Social Darwinism', which can be traced in the 'theory of karma' of Ancient India. According to this theory, an individual's state of present life is the result of his works (i.e. karma) of the past life. Similarly, his present works or acts would decide his state in next life means to say, better acts be slow better life and bad acts provide poor life. This implies that work can pave the way for a relatively better life. Therefore, our ancient Rishies sought self-actualization in 'ashrams' and accepted the disabled for facilitating atonement for past life through involving them in good works and to attain good 'Karma' for themselves.

1.3.3.1 Ancient Indian Scenario.

The earliest source of reference of disability was the Ramayana period around 5000 BC. It was the reference of mental retardation when Queen Kaikayi's maid named Manthara was found dull. The philosophy of 'Sankya' the different kinds of intellectual disabilities. Around 1000 BC, the Garba Upnishad suggested that the distressed parents give birth to defective babies. In 500 BC, the 'childish mind' model was given in the Upnishad explaining mental retardation. During 185-71 BC Patanjali included disabled person for yoga therapy. In the 4th century BC, the Maurya period, Kautilya came ahead and banned both verbal and behavioral insult of persons with disabilities, recognized their rights of property and employed many of them as spies in his region. Later on,

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emperor Ashoka established hospitals and asylums for the disabled. A significant milestone was achieved by Vishnu Sharma around 1st century BC. He was the courtier of King Amarsakti and wrote the world's first text on Special Education, titled, "Punchtantra'.

1.3.3.2   Development In Medieval India

In same tradition of care and protection from the state continued in this period also, with some noticeable progress. The blind would become minstrel and sing hymns in praise and worship of God. Surdas is the epitome. He was a blind poet who worshipped Krishna and Spread Krishna Bhakti cult. Similarly, a blind Muslim could memorise Quran to become a hafiz. The Maratha and the peshwa appointed deaf as spies and along with dumb employed as copiers or duplicators of secret documents. Although confined to certain people, however this was indicated significant change in attitude and behaviour of the people toward special education devising some indigenous methods of education and training of the disabled.

1.3.3.3 Development In Modern India

In course of time in first 3 decades of 19th century, global change in society led to the development in modern education and special education to much extent also. Special education began in North India in 1826 with an opening of an asylum for the blind at Varanasi by Raja Kali Shankar Ghosal.

In 1841 a development took place in chennai when an asylum was opened for idiots, separating them from the mental illness. There were many centres established for the disabled throughout the country in the 2nd half of the 19th century including training centres and integrated schools. But the noticeable development became conspicuous when the first institute for the deaf and mute come into existence in 1884 at Bombay (now Mumbai). In 1886 the Brail System come to India with the opening of the first school for the blind of Ambala in Punjab. These events are deemed to be the outset of special education of children with disability in India. The North East India registered its name in history when a school was opened

in 1918 at Kurseong in Bengal to train those children who were having physical and mental defects and unable to profit by normal school teaching. Similar work began in Travancore in 1931 and in chennai (then Madras) in 1936. Contemporarily, the psycho medical retardation centre was established at Ranchi in 1934. The Government Mental Hospital, Madras started a school for children with mental retardation in the year 1939, while the first home for the mentally deficient come up in 1941 at Bombay. This was the direct out come of the Children's Act. Mrs Vakil in 1944 started another school of mentally deficient in Bombay and surprisingly the number of institutions for the deaf, blind and mentally retarded rose to 34, 32 and 3 respectively by 1947. In 1954 Mr. Srinivasan began the first special class in a regular school at Andheri in Bombay.

The outset of constitutional obligations regarding the special education of universalisation of education in the age group of 6-14 years under article 45, which included the disabled children along with the normal. In addition, although article-41 also envisages that the state shall 'within the limit of its economic capacity and development, make effective provision for securing the right to work old age, sickness and 'disablement, but this is contradictory in itself. Subsequently the Education Commission Report (1965-66) recommended placement of the disabled child, "as far as possible" in ordinary schools. The recommendation was endorsed in the 1968 National Policy Resolution of the parliament. The practice of the recommendation was mostly in special schools however; the integrated education was remaining in the back seat. The major reason behind this was lack of preparation for implementing the scheme, especially the trained staff and inadequacy of special support. Then, the scheme was transferred to the Ministry of Education from the Ministry of social welfare.

Initially, the efforts of the Education Ministry were confined to limited categories of disability and the aim was a range of educational provision in terms of curriculum, instructional material, instrumental aid, besides medical, psychological and social supports. Although it was a well recognized fact that the disabled people have the same right to education as any citizen, however, because of the preoccupation of the developing countries (Third world countries) with survival needs and lack of resources the target was not achieved. Therefore, it was emphasized to

improve access of the disabled children to education as per their needs as closely as possible to that of ordinary children in their environment. For the purpose, a model was developed to achieve the aim of universalisation of education for disabled people. The model was based on the following considerations:

1. Special education is a subsystem of the education system. Therefore, it should be developed as a component of education and supported by the Health and Social Welfare departments.

2. The educational provision for the disabled can be developed in ordinary schools with adequate special support leading to optimal integration.

3. Range of educational provision can be planned within the existing education system through increasing the number of staff and services.

4. The integration of education mentioned in I & III above will result in strengthening of the educational system through improving its responsiveness to both ordinary and disabled children as well. This responsiveness can be shared by the ordinary teachers and special educat

5. Support staff, particularly special teachers or within the closest distance of the educational provision made for the disabled children.

6. Area planning could be done for coordination of the services and better utilization of resources. The size of the area is determined by the number of the disabled children requiring the provisions and services.

In parallel with these recommendations the Federation for the Welfare of the Mentally Retarded (FWMR, India) was born in 1965. It aimed at mobilizing resources to provide various services to persons with mental retardation and to bring them into the mainstream of development. This federation did tremendous works in 'creating awareness in people and getting advantage and support from the Government- up to 1985. In 1984 the Government of India founded the National Institute for the Mentally Handicapped aiming at education and training of persons with mental retardation. Simultaneously, the Government also established the institutes of visually handicapped, hearing impaired and orthopaedically handicapped; the NCERT and 6 university departments and colleges of education had been funded for developing training programmes. 1986, the Government of India established the Rehabilitation Council of India. It was an astonishing breakthrough in this area, which is supposed to be responsible for training policies and programmes, to standardize the training courses for professionals dealing with disabled persons to grant recognition to the institutions running these training courses and to maintain a central Rehabilitation Register of the Rehabilitation Professionals.

In 1986, education for handicapped was included in the 'National Policy on Education' passed during the premiership of Mr. R. Gandhi. This NPE specified that the possible education of children with handicaps will be common with that of other normal children and these children were proposed to be enrolled in special schools with hostels at distinct head quarters. For fulfilling the target it was implicated that there would be a system for identification, diagnosis and assessment of the handicapped for placement in different special schools. In this connection, the National Building Code of India (1983) and the Bureau of India Standard Code (1987) on "Building and Facilities for the Physically Handicapped had provided guidance and provision for requirement of physically handicapped in the public building processes. In 1987 the Behrul Islam committee was constituted to study the problems of disabled persons in a comprehensive manner. This committee dealt with both the preventive and promotional aspects of rehabilitations such as education, employment, vocational training and creation of a barrier- free environment. This committee became bedrock of the persons with Disabilities (Equal opportunities, protection of Rights and full participation) Act, 1995. This is a landmark legislation as an attempt to change the disabled scenario. It is a comprehensive legislation, which will provide the much needed legal protection and status to every disabled person in this country.

The Act is to remove all discriminations against persons with disabilities in sharing of development benefits and also to integrate them in to the social mainstream. It consists at 14 chapters and the 5th chapter deals with education for disabled person. In this chapter, it makes it mandatory for the Government and local authorities to:

- Provide free education to disabled children till they attain the age of 18 years.

- Promote the integration of students with disabilities in the normal schools.

- Promote the setting up of Special schools in Government and private sectors, in remote areas, to impart special education with vocational training.

- Make schemes and programmes for non-formal education such as:

  □ Conducting 'Special Part-time classes' for children who have been educated upto class V and then could not achieve due to disability.

  □ Conducting 'Special part-time classes' for providing functional literacy for children in the age group of 16 and above.

  □ Imparting 'non-formal education' after giving the recipients appropriate orientation.

  □ Imparting education through 'Open-schools' and 'Open universities'.

  □ Conducting class and discussions through interactive electronic media.

- Undertake research for designing and developing new assistive devices and teaching aids.

- Set up teacher's training institutions to develop trained manpower for schools for children with disabilities.

- Prepare a comprehensive education scheme, which would provide for transport facilities, special books, uniforms and equipments needed for education free of cost. Thus it has presented highly commendable provision to the education for the disabled.

After 2 years of this landmark Act, the National Handicapped Finance and Development Corporation (NHFCD) was set up in January, 1997 for providing financial assistance through education and self-employment for their economic growth and development. The Ministry of Social Justice and Empowerment has attained recent milestone in this context establishing 6 composite Regional Centres (CRCs) in different parts of Indian the year of 2000 and 2001. Out of these 6 CRCs 5 have started working, i.e., in Jammu, Lucknow, Bhopal and Guwahati. All these centres have common goal of prevention, educations and rehabilitation with different kinds of disabilities.

Hence, the surveillance on the historical development of education for the persons with disabilities appears to prove that 'Rome was not built in a day' and shows steady development since a long and networking its wings on national and international scenario.

1.4 UNIT SUMMARY: THINGS TO REMEMBER

After having comprehensive account of this unit you will be able to summarize it under following points: -

- Education is an attainment of skill of utilising knowledge for development. It helps us to live with others. Education of people with various difficulties, problems or special talents is called special education

- Historical development of special education can be classified into Instinctive Darwinism, Social Darwinism and Educational Darwinism

- The oldest reference of disability and special education can be traced in around 5000 B.C. in India. However, the first reference in the West was found in 1952 B.C.

- Patanjali associated the care of disability with Yoga. He taught Gouda pathaga who was a dull person.

- Firstly, Kautilya (4th Century B.C.) banned the use of terms insulting to persons with disabilities. And he employed many disabled people in spy network.

- King Henry 2nd of Britain was the first person who enacted legislation differentiating people with mental retardation from those with mental illness.

- Although the concept of special education and related systematic services took shape in Europe in the early 19th century, however, Jean Marc-Gaspard Itard (1774-1838) initiated first systematic training to educate mentally retarded people.

- The first residential institution of comprehensive treatment for mentally handicapped children was established by Hohann Guggenbuhl (1816-1863) in 1841 in Switzerland. Special education began in modern India at Varanasi in 1826 by K.S.-Ghosal.

- In India, the first institute for disabled people was established in 1884 in Bombay. This was for the deaf and the mute persons, and, for the blind the Braile system came to India in 1886.

- Alfred Binet's intelligence test, developed in 1907, became the revolutionary event in the field of special education

- In 1954, Mr Srinivasan began the special class in a regular school at Andheri in Mumbai.

- Special education was manoeuvred by the development of the Vocational Rehabilitation Act and Education for All Handicapped Children Act in 1970s.

- In 1990, Disability Act came into force in America. In India The Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995 was the landmark legislation.

The Ministry of Social Justice and Empowerment has planned to establish six Composite Regional Centres in all over India during the period of 2000-2001, out which 5 are functioning.

1.5 CHECK YOUR PROGRESS:

1   What is the use of reading historical and legislative issues.

2   Clarify disability and handicap.

3   Evaluate the functions of the Rehabilitation council of India regarding education for persons with disabilities.

1.6 ASSIGNMENT/ ACTIVITY

Discuss the persons with Disabilities (Equal opportunities, protection of Rights and full participation) Act, 1995 with the people in your surrounding.

1.7 POINTS FOR DISCUSSION AND CLARIFICATION

After going through the unit you may like to haved further Clarification and Discussion on some Points.

1.7.1 Points for discussion

1.7.2 Points for clarification

1.8 REFERENCE

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UNIT-2: TOOLS AND AREAS OF ASSESSMENT

STRUCTURE

1   Introduction

2   Objectives

3   Definitions

4   Summary

5   Revision

6   Assignment/Activity

7   Points For Discussion And Clarification

8   References / Further Readings

2.1   INTRODUCTION

It would provide you a conceptual as well as operational knowledge about the national educational policy and programme

The first National Policy on Education (NPE) of independent India came into existence in 1968. But it became ineffective because of poor formulation and lacking adequate financial and organizational support. Therefore it was undertaken for scrutiny and renovation in 1985. The Government of India this time decided to put forward a new national policy on education. After nationwide discussion the new National Policy on Education was formulated in May 1986. It laid the policy on various aspects of education in which one of them was education for the disabled mentioned in sixth chapter of the NPE. The main aim of this policy is to integrate the physically and mentally handicapped people with the general community as equal partners, to prepare them for normal and to enable them to face life with certitude and fortitude.

The Valuing People white paper (DoH 2001) states learning disability includes the

presence of:

- A significantly reduced ability to understand new or complex information, to learn new skills (impaired intelligence), with;
- A reduced ability to cope independently (impaired social functioning);

- Which started before adulthood with a lasting effect on development. (This may include associated childhood illnesses for example, encephalitis and meningitis).
- Approximately only 2% of the population in the UK have a learning disability.
- People are not usually defined as having a learning disability if they able to:
- Independently attend courses and gain qualifications (GCSE /O Levels etc.)
- Be in a paid, full time, unsupported job
- Drive a car (Full UK drivers' license).
- Attend mainstream education without additional support.

Independently carry out complex purchasing (i.e. buying a house).

The term 'Learning Disability' does not include someone who has had normal development up to the age of 18 years or someone who has suffered a head injury.

Conditions which may be confused with learning disability:

People statemented at school as having difficulty learning with no associated causes or disability.

- People under the influence of long term alcohol or drug / substance abuse
- Problems with reading, writing or numeracy only.
- Emotional difficulties that may sufficiently have disrupted schooling, influencing
- achievement.
- Conditions like Attention Deficit Hyperactivity Disorder (A.D.H.D.) or Hyperactive
- disorder.
- Asperger's syndrome and some individuals with Autism (a _ of people with Autistic
- Spectrum Disorders disorder do not have a learning disability).
- People with diagnosed mental health issues which impact on cognitive ability or
- adaptive functioning.
- People with physical or sensory impairments.
- Epilepsy.

Assessment tools should be selected based on their applicability to the learning outcomes being assessed. In some cases, more than one tool may be used to assess a course or program. Measures may be direct or indirect. In direct measures, student demonstrate an expected learning outcomes (e.g. through a test, project, or assessment). In indirect measures, student or others report their perceptions of how well a given learning outcome has been achieved (e.g. through a student survey). Ideally, both types of measures will be used. For examples of tools, see the information on Sample Assessment Methods further down on this page.

Sample Assessment Methods

The following are just some of the potential assessment methods that might be used in assessing student academic achievement in courses and/or programs. It is always recommended that you choose the assessment method(s) that seem most appropriate for the learning outcomes you wish to assess.

Capstone experience

A project or activity in which students demonstrate achievement of comprehensive learning outcomes that is usually completed at the end of a course or program. In a program, there may be a capstone course that includes the pertinent learning outcomes for the program.

Departmental exam

A common exam developed collaboratively by a department used in all sections being assessed; may be part of a graded final that is evaluated separately using a scoring rubric.

External certification/licensure exam

Exams developed by regional or national accrediting or licensing organizations to evaluate students on specific skills usually related to an occupational area, such as nursing or automotive technology.

Externally evaluated job performance
Evaluation of student competence, knowledge and skills by an employer in and internship, coop, or job placement. Useful for program assessment in occupational areas.

Externally evaluated performance or exhibit
Useful in the visual and performing arts, a performance or exhibit that is evaluated or judged by experts in the field other than the instructor for the assessed course/program. The external evaluator may be an instructor at WCC who teaches a different course/section.

Portfolio

A compilation of student work, including perhaps projects, artwork or writing samples, demonstrating achievement of multiple learning outcomes. May be in paper or electronic form, and may be used for course or program assessment. Portfolios are generally externally evaluated.

Pre- and post-test

A test or other assessment activity that is administered to students both at the beginning of a course or program and at the end, with the intention of demonstrating improved knowledge or skill upon completion.

Prompt

An assessment activity in which something such as a newspaper article, poem, or piece of art is presented to the student in order to prompt a specific response, usually written. Useful particularly in the arts and humanities.

Standardized Test

A test assessing academic achievement or of knowledge in a specific academic or vocational domain. Such tests are frequently objective (although some may be written tests with open-ended questions) and have scores referencing the scores of a norm group, providing comparative data. Standardized tests are generally commercial products and are useful in many areas. A current example at WCC is the use of CAAP tests to assess skills in the general education areas of math, writing, and natural science.

Surveys

Surveys may be used to evaluate perceptions of student achievement. Surveys of graduates, employers, or advisory committee members may help determine if program outcomes relating to employment and skill attainment have been met. Students may also be surveyed regarding self-perception of their success or, if administered as a pre- and post-test, of the improvement following completion of a course or program. Because surveys are indirect measures of student academic achievement, they are ideally used in combination with more direct measures.

Transfer follow-up

In courses or programs that have a high degree of transferability to other institutions, it may be useful to examine student success in subsequent courses at the receiving institutions. WCC has a large database of transfer follow-up information from Eastern Michigan University for assessment purposes.

2.2   OBJECTIVES

After going through this unit you will be able to understand:

- Basic formulation and strategy of education for the disabled included the NPE (1986).

- Educational needs of disabled persons, and, plans and programmes to be implemented for the purpose

- Current position of education for the disabled in India.

2.3   EDUCATION OF THE DISABLED

2.3.1 Implications of the NPE statement

The NPE, emphasizing on integrated education, clarifies that education of children with disabilities would be common with that of normal children. In addition, appropriate and adequate arrangements and common as well as special vocational preparation for the pre-school children with disabilities have also been recommended. It is implicated that there will be a system for identification, diagnosis and assessment of the handicapped for schooling. The children with disabilities will be prepared for education under the Early Childhood Care and Education (ECCE). The ECCE programme comprises:

- Integrated Child Development Services (ICDS).

- Assistance to voluntary organizations for conducting early childhood education centres

- Balwadis and day-care centres run by voluntary organization with Government's assistance.

- The pre- primary schools run by the State Govt. and other authorities.

- Maternal and child health through primary health centres and other agencies

2.3.2   Process Formulation:

The NPE has emphasized that with the improvement of health services; nutrition standard, maternal care and other effective measures to prevent disability the incidence of disability can be reduced. As a result, the absolute number of handicapped children won't increase. For the, leastways, 10000 special schools with

150 to 200 admission each will be required. As education in special schools is very costly, so, it will be ensured that only those children whose needs can not be fulfilled in common schools, should be enrolled in these schools, It has also been assumed that the improved efficiency of the common schools would enable them to cater the needs of the disabled children. But the best way of education of the disabled is 'universalisation ' of primary education along with other children by 1990 (6-11 years) and 1995 (6-14 years)

Albeit, it would require daring steps with facilities, resources and trained specialists; however with combined efforts children with loco- motor handicap along with children with mild handicap can be covered within a given time period.

The registration and retention of children of these two categories of handicap would be increased by 25% each year through the following methods: -

- Organizing advocacy programme for administrators and teachers in the common schools.

- Including training component on the management of this group of children in the in service training programme of teachers.

- Orientation programme for the administrators and supplementing it through distance learning programme also.

- Developing expertise at the SCERT, sub-divisional and Block levels for providing supervisory services to the teachers managing these children.

- Developing Psychological services for the assessment of disability, and

- Mobilizing support from the Health and Welfare Ministry wherever necessary.

It is added that a team of at least 3 persons at the State Council of Educational Research and Training (SCERT) and one each at the sub-divisional and Block levels will be provided adequate training. It involves training of around 6000 Education officers at the sub-district level. The National council of Educational Research and Training (NCERT) can be involved to take the liability of developing handbooks for teachers and education officers managing disabled children under the common education system. The Labour Ministry would be responsible for facilities for the training of personnel's in I.T.I.s for the handicapped. In same way, the welfare Ministry and Health Department are supposed to provide prosthetics and the services for the assessment and diagnosis along with the District Rehabilitation Centres.

The NPE (1986) has proposed some provisions along with incentives for the disabled, which are as follows: -

Provision of aids and appliances in the area to be covered.

- Adequate provision for the payment of transportation   allowance (Rs. 50/- per month).

- Provision for capital cost for the purchase of school rickshaw to an institution in rural areas, which has at least 10 handicapped children.

- Removal architectural barriers in school building where at least 10 handicapped children are enrolled.

- Supply of textbooks and uniforms free of cost as given to schedule caste and schedule tribe's students.

- Attendance incentives to the handicapped children.

- Arrangement for the preparation of these children in Early Childhood centres for Education in schools.

- Provision for admission of children older than the eligibility (upto 8-9 years instead of 6 years). It is essential in the transitional phase of the provision.

According to the policy the tools for the psychological and educational assessment and diagnostic tools for identifying learning problems are missing meaningfulness. These need to be developed in regional languages. So much so, adaptation of different tools should be encouraged in required different regional languages. They have suggested that the NCERT should undertake this work as per the priority. Augmentation of education of children with motor handicaps and other mild handicapped children in common schools is also very worthwhile.

2.3.3 Education in Special Schools

Special Schools and Vocational training centres

The NPE (1986) has advised that special schools would be better to establish at the composite special schools would be more good to start with. This decision is based on the logic of geoscatter of the population with disabilities, unable or reluctant parents who cannot send their children to school located at distant place, sharing of specialist staff of all branches required, pre-vocational and post vocational use of centres, meeting the needs of multiple handicapped children. It has also said that if the number of children in a particular disability becomes large enough (i.e., 60-70) in a particular area, then a separate school for that area of handicap may be carved out.

There would be a vocational training centres in each of the special schools which will provide vocational training to the students of the special schools and other severely handicapped persons for Job. Although, the emphases would be on locally available job, however the Rehabilitation council of India should be requested to recognize this training programme so as to get the job throughout the country would be easy for incumbents. Separate hostels can be provided for boys and girls. The capacity for the boys hostel should be 40 and the girls about 20. These hostels should cater to the students of the special school and vocational training centres as well. Establishment of special schools should be a central scheme implemented through state either through

the state machinery or the voluntary sector. Each of these special schools may have at least 60 handicapped children of all categories to begin with.

C) Teachers of Special education and other professionals

Training of disability-wise special teachers has to be taken up immediately for smooth function of schools. The Ministry of Human Resource Development and the Ministry of Welfare through the University Grant Commission (UGC), NCERT and Regional colleges of Education, National Institutes of Handicaps and selected University Departments of special Education may undertake this task. The National Institutes through its regional centres and the Regional Colleges of Education in collaboration with Scents may organize the in-service training courses.

Besides teachers, 400 psychologists and at least 2 doctors in each district are required to the task of assessment and rehabilitation of the handicapped children. It is recommended that the counselors may be provided in- service training of 4-6 weeks for undertaking assessment and care of disabled children. Similarly, orientation programme for the medical staff for two weeks of duration may be undertaken. In addition, other staff like physiotherapists, occupation at therapist, speech therapists would be required - at least 400 each. The National Institutes and Regional colleges of Education on regional basis may organize orientation training for the vocational teachers. The duration would be of two weeks.

Curriculum

The curriculum of these schools should be modified considering the specific learning problems arising out of a disability. For example, limitation of the blind child for science practical, and limitation of the deaf child to study more than one language needs to be adjusted in the curriculum. So. Caution should be taken so that these children should not miss the curriculum component that they can learn.

The use of technology in special education should be provided proper attention. It involves modification, adjustment and adaptation of the equipment and material in the learning resource centre. The Department of Electronics, Ministry of HRD, and Ministry of Welfare may collaborate to produce such material for improving learning opportunities for the disabled. For instance, scripted TV and video for the deaf etc.

Institutes of Handicap and NCERT should develop the curriculum and make available curriculum guides and teachers handbook to special schools.
Examination

The NPE (1986) suggests that there should be flexible examination for severely disabled children. Evaluation guides and tools for educational assessment should be made available to these schools. The NCERT and the National Institutes, which have expertise and skills in this context, should collaborate to produce this material.

2.3.4 Monitoring

Ministry of Welfare and Ministry of Human Resource Development (MHRD) will monitor the progress of education of the handicapped in special schools and in common school respectively. For the purpose, an integrated information system will be located in the Ministry of HRD. The data regarding the institutions for educating the handicapped will also be included in the statistical reports of the MHRD. The Ministry of welfare will also provide information from special schools to MHRD. In addition the periodic information survey carried out by the NCERT will include data on education of the handicapped also. The MHRD and Ministry of welfare will conduct evaluative studies at different points of time through the National Institutes, NCERT, and other university Departments of special education. Qualitative studies will also be taken.

2.4 PROGRAMME OF ACTION (1992)

The programme of Action (POA) is meant to provide an indication of the nature of actions, which will be needed in order to implement the directions of the policy. It provides a broad strategy that conglomerates total schemes to be implemented. It also facilitates the preparatory work to be put into operational form. Regarding special education for the disabled, it has been well accepted in the 'POA of 1992' that the best possible way to teach them along with their agemates and within the same curriculum being followed for that of the other normal children. The aim is to integrate the children with disabilities with general community at all levels as equal partners, to prepare them for normal growth and to enable them to face life with spontaneity. You can organize the various schemes of programme of Action (1992) under following headings:

2.4.1 Aims

The PoA (1992) has aimed to provide educational opportunities for the disabled children in common schools, to facilitate their retention in the school system and to integrate them to acquire healthy communication and daily life skills at the functional level.

2.4.2 Assessment of Educational needs of the Disabled children

Theoretically, three paradigms have been considered to assess special educational needs:

- **Psycho medical paradigm-** In this paradigm, the person or individual (Micro) is focused, who has deficit within him or herself as cause of disability and the form of intervention required is diagnostic testing and quasi-clinical examination.

- **Sociological paradigm-** it focuses on society the societal (macro) level that creates special needs, social inequalities and suggests reforms in educational system to root out inequitable practices.

- **Organizational Paradigm-** Its focus is institutional (meso) level and addresses special needs arising out of the way schools are presently organized.

2.4.3 Assessment of the Disabled children

It comprises a three- member assessment team a doctor, a psychologist and a special educator, which function under the Administrative cell. Specialists are drowning up in consultation with the state Health Department. The overage cost of an assessment should not exceed Rs. 150 per case. It is necessary to examine large number of children to select suitable among them in an integrated programme. Members of the assessment team would be given TA and DA as per state Government rules.

The assessment report should be comprehensive enough for educational programming, it should be adequately reported that what a particular child could do or not. The report should specifically indicate whether the child could be put directly in to school. The teacher can carry out functional assessment if formal assessment is to take a long time so that the educational programme can be started for these children.

2.4.4 Facilities for Disabled children

- A disabled child may be given the following kinds of facilities under the PoA (1992) Schemes:

  - Actual expenses on books and stationery up to Rs 400/- per annum.

  - Actual expenses on uniform upto Rs 200/- per annum.

  - Transport allowance up to Rs 50/- per month. It a disabled child admitted under the scheme resides in the school hostel within the school premises; no transportation charges would be admissible.

  - Reader allowance for severely handicapped with lower extremity disability at the rate of 75/- per month in case of blind children after class V.

  - Escort allowance for severely handicapped with lower extremity disability at the rate of 75/- per month.

  - Actual cost of equipment subject to maximum of Rs. 2000/- pr month for a period of five years.

- In case of severely orthopaedically handicapped children, sometimes it may be essential to allow one attendant for 10 children in a school. The attendant may be given the standard scale of pay prescribed for class IV employees in the state/ Union Territory concerned.

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- Disabled children residing in scho. hostels within the same institution where they are studying may also be paid boar and lodging changes as admissible under the state Government rules disabled children whose parental income doesn't exceed Rs 5000/- per may be paid actual boarding and lodging charges upto Rs 200/- per month-where there is no scholarship to hostellers.

- In case of severely orthopaedically handicapped child who need assistance, a special pay of Rs 50/- per month is admissible to any employee of the hostel willing to extend such help to the child in addition to his/her duties.

2.4.5 Appointment of Special Teachers

The teacher-pupil ratio for special education should ideally be 1:8. This ratio will be the same for normal classes as well as for provide counseling to the parents. These teachers should possess the following qualifications: -

- They should have primary qualification of one -year course in special education or with specialization in teaching any type of disabled in the education of other categories of disability. In secondary qualification, person should be graduate with B.Ed. (Special Education) or any other equivalent professional training in special education. Incase qualified special teachers are not available, teachers with short training course may be appointed with the condition that they will complete the full course within 3 years of appointment. They can be given special allowance only after completion of the full course. Teachers with single disability professional courses will be encouraged to take courses in other disabilities also to improve viability in rural areas.

There would be no difference in basic pay structure between the teachers of ordinary school and special education. Rather, considering the special type of duties, these teachers will be given a special pay of Rs 150/- per month in urban areas and Rs 200/- per month in rural them through normal recruitment procedure.

2.4.6 Training of Other Staff

For successful implementation of the NPE, short-term orientation courses for administrators, heads of the institutions and general teachers associated with the programme of special schooling may be organized. Training of administrators will be organized by the NCERT. The Government may organize orientation programmes of three days duration for heads of the institution and 5 days for general teachers of the institutions with the help of the Regional College of Education (RCE) and District Institute of Education, and Training (DIET) for the handicapped. In this context the cost of honorarium and TA/DA of resource persons and contingency have also been included in the scheme. The average cost of a 3-day orientation programme is estimated at Rs 4500 and for a 5-day programme at Rs 6000.

2.4.7 Thrust Areas

Major thrust areas of the special educational programmed are as follows: -

- Project of Integrated Education for Disabled (PIED).
- Research studies conducted to evolve strategies for tackling the problem of children of special groups.
- -Preparation of training manuals for teachers working with children in integrated setting.
- Programme aimed at mobilizing community support.
- Teachers training programme and Curriculum Adaptation.
- Preparation of audio-visual material developed under PIED programme.
- Development of handbooks and source books for teachers working with children with special needs including those with visual problems, hearing problems and remedial vision.
- Parent contact programme and community collaboration programmes.
- Programmes in collaboration with Non- Government Organizations working in the field of special education and various other programmes aimed at integration of disabled into the mainstream through special efforts.

2.4.8 Material Development

The PoA (1992) in the context of the Education of the Disabled includes the following points of material development:

- **Functional Assessment Guide-** Meant for early identification and assessment of children with disabilities. Places like hilly areas where no professional support is available, this guide has proved to be the only instrument to identify disabled children.
- **Education of children with visual problem-** it helps in understanding the children with visual problems.
- **Teacher's Handbook on Adaptation in science curriculum-** has been developed under improved Educational Facilities by way of curriculum adjustment and adaptation of instructional material and methods to the need of disabled children.
- **Creative Art Activities for the Disabled children.**
- **Adoptions of Physical Education and sports Activities for children with Disabilities-** in General school system. The curriculum of physical education

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developed by NCERT for classes I-VIII provided basis of developing the guidelines.

- **Adjustment in Language, Textual Material and Methodology-** for the needs of Hearing- impaired.

- **Two source Books for Training Teacher of Hearing impaired and visually Impaired children.**

2.4.9 Resource Room

A resource room comprising all the essential equipment, learning aids and material may be provided for implementing the PoA's scheme of special education. In this context the NCERT has prepared a handbook, which also indicates the type of facilities and equipments required for disabled children. The need for equipment would depend upon the types of disability of the child. The resource room may be set up in an existing room in the school. Grant shall be available for construction of a resource room in a school in such circumstances to maximum of Rs 50000. For special education in general school, NGO/ Special School should be used as resource centres.

2.4.10 Removal of Architectural Barriers

It is necessary to remove architectural barriers or to modify existing architectural facilities, so as to provide easier access to orthopaedically disabled children to the school premises. Grant shall be available for this purpose for the schools of handicapped children.

2.4.11 Regulations for Relaxation of Rules

Governmental or other implementing agencies should also frame regulation for relaxation of rules relating to admissions, age limits for admissions, promotions, examination procedures etc. for improving access of the disabled children to education. Provision for admission of disabled children older than the normal eligibility is essential in the transitional phase particularly till the target of Universal Primary Education (UPE) is achieved.

2.4.12 Pre-school and ECCE Facilities

Preparation of disabled children for education should be started from the elementary level and preference should be given to the blocks where the schemes of Integrated Child Development services (ICDS) and early childhood centres of Education (ECCE) exist. The ECCE programme include:

- Integrated child Development Services (ICDS)

- Scheme of assistance to voluntary organization and for conducting early childhood education centres (ECE).

- Balwadis and day-care centres run by voluntary agencies with Governments assistance.

- Pre-Primary schools run by the state Governments, municipal corporations and other agencies.

- Maternal and child health services through primary health centres and sub-centres, and other agencies.

2.4.13 Procedure for Grants to state Governments

The state Governments/UT Administrations should formulate their programmes, make assessment of their financial requirements and submit proposals to the Ministry of Human Resource Development (Department of Education, Govt. of India) by the end of December every year. The proposals should be accompanied by utilization certificates for grants released in the previous year along with the report of previous years achievements, i.e., detailed information regarding areas covered last year, the number of disabled children covered school-wise, teachers 'training programmes conducted etc. The proposal will be examined in the Ministry and 50% of the approved grant for the year will be released as the first installment. The remaining 50% of the grant will be sanctioned the state/UT Administration will be reported about the utilization of at least 75% of the grant sanctioned earlier. An implementation report and a detailed statement of expenditure should accompany the request for the release of the second installment

2.1.14 Procedure for Grant to voluntary Organisations

The voluntary organizations working under this scheme should send their applications through the concerned state Government's/UT Administration's ministry. The state should give its views within a period of 3 months regarding the organizations eligibility, suitability and relevance of the proposal and the capacity of the agency to implement it. The state Government should comment even when the proposal is not recommended, with reasons behind. The eligibility criteria of financial assistance for voluntary organizations are as follows:

- They should have proper constitution of articles of association.

- A proper managing body with its powers and duties clearly defined in the constitution.

- -Should be in position to secure the involvement of knowledgeable persons for extension of their programmes.

- No discrimination against anybody on ground of gender, religion, caste etc.

- Should not run for the profit of any individual or a body of individuals.

- Should not function directly in favour or for interests of any political party, and

- No incitement to communal disharmony.

2.4.15 Evaluation and Monitoring:

Regarding evaluation and monitoring work, the state Governments or UT Administrations may identify institutions/ agencies responsible to take up evaluations of the programme in chosen areas/ schools. The cost of such evaluation studies would be refundable to the state Government under the scheme. The central Government may also undertake an evaluation of implementation of the scheme through the NCERT or other institutions at the end of the plan period. Sometimes, quarterly progress reports may also be furnished to the Ministry of Human Resource Development (Deptt. Of Education) with a copy to the NCERT.

2.5 UNIT SUMMARY: THINGS TO REMEMBER

After perusal of this unit you will be able to summarize it under following points:

- The National Policy on Education came into existence in May 1986. The description on Education of the Handicapped has been mentioned in 6th chapter.

- It talks about integrated education that the education of children with motor handicaps and other mild handicaps will be common with that of the other.

- Special schools with hostels will be provided as far as possible at district headquarters for the severely handicapped children.

- The Programme of Action (PoA) provides an indication of nature of actions to be taken as per the direction of the policy.

- The coordinator is chiefly responsible for assessment and monitoring progress of the disabled children.

- The assessment report should be comprehensive for multipurpose educational programming.

- There is a provision of different monetary and other kind of facilities for both the disabled children and their teachers for smooth implementation and running of the programme.

- The eligibility criteria for special teachers are completion of one-year course in special education as primary qualification and Graduate with B.Ed. in special education as secondary qualification have been recommended.

- There would be no difference in basic pay structure of teachers in special education and teachers in ordinary education programme.

- For education of the disabled children preference should be given to the blocks, which are running the programmes of ICDS and ECCE.

- State Government/UT Administration will be responsible for evaluation and monitoring of these programmes and sometimes other institutions or agencies may be involved for this.

2.6 CHECK YOUR PROGRESS

1. Critically evaluate the chapter of 'Education of the Handicapped' of the National Policy on Education, 1986.

2. define the Programme Of Action and discuss the PoA, 1992.

2.7 ASSIGNMENT/ ACTIVITIES

Have a discussion on the National Policy on Education, 1986 with special reference to the chapter of 'Education for the Handicapped', and the 'programme of Action, 1992, with your teacher and colleagues. Give some suggestions also.

2.9 POINTS FOR DISCUSSION AND CLARIFICATION

After going through the unit you may like to haved further Clarification and Discussion on some Points.

2.9.1 Points for discussion

2.9.2 Points for clarification

2.10 REFERENCE

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2.   'Education of children with special need' published in the 'DPEP CALLING', April-July, 2000.

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UNIT - 3 : STRATEGIES FOR FUNCTIONAL ACADEMICS AND SOCIAL SKILLS

STRUCTURE

1   Introduction

2   Objectives

3   Definitions

4   Summary

5   Revision

6   Assignment/Activity

7   Points For Discussion And Clarification
8   References / Further Readings

3.1 INTRODUCTION

The country has witnessed a phenomenal expansion of educational opportunities in the post independence period. Disabled children however have not benefited substantially from this growth. To achieve the goal of education for all, the Government of India has brought education of this group of children for special attention as part of its concern for equalization of education opportunities. The National Policy on Education (NPE 1986) focuses on the needs of children with disabilities. The NPE, 1986 recommends and integrated education in general schools for children with locomotor handicaps and with other mild disabilities, orientation and pre-service training of general teachers to meet special needs of these children, provision of vocational training, establishment of special schools for severely disabled children and encouragement of voluntary organizations in these tasks. The Programme of Action (POA) formulated for implementing the NPE suggested a pragmatic placement principal, it postulated that the child with disabilities who can be educated in a general school should be educated in a general school only and not in a special school. Even those children who are initially admitted to special schools for training in plus curriculum skills should be transferred to general schools once they acquire daily living skills, communication skills and basic academic skills.

In the prevailing conditions there are two types of educational programmes available in India for different categories of handicapped children. That is:

a) Integrated education Programme for children with mild disabilities in a regular school setup under the Scheme of Integrated Education for Disabled Children (IEDC) formulated by the Ministry of Human Resource Development, being implemented through State Council of Educational Research and Training (SCERT) and Non Governmental Organizations (NGO) at State level.

b) Special school programmes for severely disabled children in a special school setup formulated under the Ministry of Social Justice and Empowerment, being implemented through the State Governments, involving the NGO's.

In the present unit we will be discussing about the scheme of integrated education, that is, what IEDC is, how it is implemented, he scope of IEDC, the kind of facilities available for the disabled and what the State level agencies do.

Skills that emphasize daily living skills, community skills, recreation and leisure and employment need to be incorporated into the curriculum.

Students in inclusive settings can follow the regular curriculum, but emphasis should be placed on those skills that are the most functional.

Take advantage of in the classroom

For example, if a student demonstrates an interest in trains, have opportunities to read about trains, write about trains, do math problems about trains, etc.

May lead to working for a Train Magazine writer or photographer.

To achieve the best outcomes possible, transition-age youth need specific skills in areas such as math, literacy, and independent living. However, skills in these areas will not assure successful outcomes in the absence of adequate social skills. Social skills form the basis for social competence. Gresham, Sugai, and Horner (2001) define five dimensions of social skills: (a) peer relational skills, (b) self-management skills, (c) academic skills, (d) compliance skills, and (e) assertion skills (pp. 333-334). They define social competence as "the degree to which students are able to establish and maintain satisfactory interpersonal relationships, gain peer acceptance, establish and maintain friendships, and terminate negative or pernicious interpersonal relationships" (p. 331). This brief reviews research on the importance of social skills for youth and highlights strategies for teaching social skills to youth with disabilities.

Effective social problem solving requires reading one's own and others' feelings, and being able to accurately label and express those feelings. Such skills are aspects of social and emotional learning (Zins, et al., 1998, p. 19). Well-developed social skills can help youth with disabilities develop strong and positive peer relationships, succeed in school, and begin to successfully explore adult roles such as employee, co-worker/colleague, and community member. Social skills also support the positive development of healthy adult relationships with family members and peers. Hair, Jager, and Garrett (2002) observe that adolescents who have strong social skills, particularly in the areas of conflict resolution, emotional intimacy, and the use of pro-social behaviors, are more likely to be accepted by peers, develop friendships, maintain stronger relationships with parents and peers, be viewed as effective problem solvers, cultivate greater interest in school, and perform better academically (p. 3). Adequate social skills need to be acquired while students are still enrolled in school and further supported and refined in postsecondary, community, and work settings.

Gresham, Sugai, and Horner (2001) note that deficits in social skills are key criteria in defining many high-incidence disabilities that hinder students' academic progress, such as specific learning disabilities, attention deficit/hyperactivity disorder (ADHD), mental retardation, and emotional disturbance (p. 332). Therefore, helping students learn social skills is a proactive approach to minimizing the impact of these types of disabilities on school success.

When social skills are absent, educators cannot fully engage students in a variety of learning experiences, especially those that are cooperative. As secondary teachers increasingly use cooperative learning strategies across their curriculum, the need for students to have strong social skills is evident. To participate fully in cooperative learning, some students with disabilities need training in skills such as giving and receiving feedback, listening, and appropriate self-disclosure.

In community life, appropriate social behavior may be even more important than academic or job skills in determining whether one is perceived as a competent individual (Black & Langone, 1997). For example, Holmes and Fillary (2000) investigated the ability of adults with mild intellectual disabilities to appropriately engage in the "small talk" that is part of any workplace. They noted that workers with intellectual disabilities who demonstrate competence in social skills are generally perceived more positively than those who lack such skills, regardless of task-related skill level (Holmes & Fillary, p. 274). The notion that competence in using social skills will lead to positive perceptions of persons with disabilities can be extended to other community settings such as postsecondary education, neighborhoods, and places of worship.

Anyone who has tried to improve another person's social skills knows there are significant challenges to such an endeavor. Problems that interfere with the effectiveness of social skill interventions may include oppositional behavior, conduct problems, negative influences from peer groups, substance abuse, family difficulties, and limited cognitive abilities (Hansen, Nangle, & Meyer, 1998).

Why would adolescents want to improve their social skills? Most likely, they seek to (a) avoid the negative consequences of inadequate social skills, including loneliness, job loss, or embarrassment at school or work; and (b) enjoy the benefits of having good social skills, such as friendship, acceptance from others, and good relationships at school and work. Nonetheless, students must see the need for the skills being taught. In a school setting, teachers may ask students to identify the social skills necessary for achieving goals important to them. Based on such discussions, students and teachers can jointly select one or two skills to work on at a time.

Using Cooperative Learning Strategies to Enhance Social Skill Development

The social skills needed by transition-age youth include those needed in school, workplace, and community (see Table 1). Classroom teachers can help students practice social skills needed in nonschool settings by teaching these skills in the context of cooperative or work-based learning settings. Because students need social skills to learn effectively in cooperative settings, many excellent ideas for teaching social skills have been developed to support cooperative learning and can be found in cooperative learning curricula and resources.

Creating a Positive School Climate

Consistent and effective use of acquired social skills is more likely to occur in schools having a positive social atmosphere. Most adults can think of a situation in which they didn't feel valued and, as a result, did not respond appropriately or compassionately to others. Schools can ensure that all students know they are valued and respected members of a learning community by taking the following steps to create a positive school climate (Curtis, 2003):

- Learn and use students' names and know something about each student. This can be difficult in secondary schools; using nametags or assigned seating at the beginning of each term can be helpful.

- Hold daily classroom meetings each morning to help build a sense of community and provide opportunities for conversation among students.

- Provide unstructured time (e.g., recess) when students can practice their social skills with peers and experience feedback.

- Encourage journal writing to improve self-awareness.

- Provide opportunities for students to participate noncompetitively (without tryouts or auditions) in extracurricular activities. Avoid unnecessary competition among students.

- Provide ways for students to provide feedback regarding their experience at school, and show them that their input is taken seriously.

- Make a point of connecting briefly and informally, over a period of several days, with individual students who are having difficulties. This establishes a relationship that will be helpful if the student's situation requires a more formal discussion at another time.

School size also has an impact on student attitudes and behaviors. Research indicates that secondary students fare better socially and emotionally in schools with, at most, 800 students. Smaller schools foster greater participation in extracurricular activities, better attendance, lower dropout rates, and fewer behavior problems (vandalism, aggression, theft, substance abuse, and gang participation). Teachers in small schools are more likely than their counterparts in large schools to use teaching methods that support the development of social skills, such as cooperative learning and multiage grouping (Cotton, 1996).

To be effective and worthwhile, social-skills training must result in skills that (a) are socially relevant in the individual's life (social validity), (b) are used in a variety of situations (generalization), and (c) are maintained over time (treatment adherence) (Hansen, Nangle, & Meyer 1998). Such skills will be most consistently employed in a setting that is supportive and respectful of each person's individuality.

3.2 OBJECTIVES

After going through this unit you will be able to:
- State the meaning of IEDC
- Explain the implementation of IEDC
- List the various facilities available for the children
- Differentiate between the procedure for grants to State Governments and voluntary organizations
- Discuss the role of State level agencies

3.3 WHAT IS INTEGRATED EDUCATION FOR THE DISABLED CHILDREN (IEDC)

IEDC is a centrally sponsored scheme, which purports to provide educational opportunities for the disabled children in regular schools. It also says that the children who are placed in special schools should also be integrated in regular schools once they have acquired the communication and daily living skills at a functional level. The objective is to integrate the disabled with the general community at all levels as equal partners to prepare them for normal growth and to enable them to face life with courage and confidence.

3.4 FUNCTIONING

This scheme is implemented mainly through the State Governments, Union Territories, Administrations and Autonomous organizations of stature having experienced in special education and general education.

3.4.1 Procedure for implementation

IEDC has already been implemented in 27 States and 5 Union Territories, incase another State wants to implement the IED the procedure would be as follows:

For the implementation of IEDC, Administrative Cells have to be setup to –

- Ensure assessment of disabled children
- Organize facilities for disabled children
- Provide special teachers for the children
- Train teachers and other staff in special education
- Remove architectural barriers
- Develop resource room facilities
- Develop Instructional material
- Motivate State Government to relax rules about admission to provide early education to these children

We have till now seen the how the functioning is in administrative terms. Lets see in terms of facilities for the disabled of what the scheme offers.

3,5 FACILITIES FOR DISABLED CHILDREN

The facilities can be divided into-

3.5.1 Financial assistance

Financial assistance means that health is given in terms of money. Money is given for various needs like books transport etc. Following is the list of the exact amount for the various requirements.

- Actual expenses on books and stationery upto Rs 400/- per annum

- Actual expenses on uniforms upto Rs 200/- per annum

- Transport allowance upto Rs 50/- per month, if a disabled child admitted under this scheme resides in the hostel of the school within the school premises, no transportation will be provided.

- Reader allowance of Rs 50/- per month incases of blind children after class V.

- Escort allowance for severely handicapped children with lower extremity disabilities @ Rs 75/- per month

- Actual cost of equipment subject to a maximum of Rs 2000/- per student for a period of 5 years

- Where there is no State scheme of scholarships to hosteliers, the disabled children whose parental income does not exceed Rs 5000/- per month, are paid actual board and lodging charges subject to a maximum of Rs 200/- per month. However children are placed in hostel only when educational facilities are not available in schools near their homes.

- In the case of severely orthopaedically handicapped children, it may be necessary to allow one attendant for 10 children in a school

- Lodging and boarding charged should be paid for those students who are residing in the school hostels

- For severely orthopaedically handicapped children living in hostels 'ayah' or helper is allowed, a special pay of Rs 50/- per month is admissible to any employee of the hostel willing to extend such help to the children.

3.5.2 Manpower assistance

This assistance is in terms of people, what help they can provide:

- Special educators should be appointed for the children with disabilities admitted in general schools

- The special teacher-pupil ratio should be 1:8. In a general school for eight children with disabilities, one resource teacher will be appointed

- The primary teachers should have Secondary Educational Qualifications (10+2) with one-year course in education of children with the particular

disability. Secondary teachers should be graduates with B.Ed (special education) with specialization in a particular disability.

- The facilities for the training of special teachers are available in Regional Colleges of Education, Regional Training Centers being run by the National Institutes for the Handicapped, Special Education Departments in the Universities and in Selected Colleges of Education

- For administrators, heads of the institutions and general teachers associated with the implementation of the scheme, short orientation courses should be organized. It can be done by NCERT, State Government/ Union Territories. The expenditure should be borne by the State Government/ Union Territories administrations concerned.

3.5.3 Instructional assistance

Instructional assistance is the help provided by the school.

- Financial assistance is given for production/purchase of instructional materials for the disabled.

- Alternative modes of examination for blind and other children is provided

- Removal of architectural barriers, or to modify existing architectural barriers so as to provide easier access to disabled children. A grant for this purpose is available to schools having ten handicapped children

- A resource room having all the essential equipment, learning aids and materials is provided for a cluster of schools implementing the scheme. In case no room is provided in the school a new room can be constructed. Grant upto Rs 40,000/- is available from the State Government. The NCERT has a handbook which indicates the type of facilities which may be provided in the resource room

- State Government should have regulations for relaxation of rules relating to admission, promotion, examination procedures etc. for improving the access of the disabled children to education. Provision for education of disabled children older than the normal eligibility limit (8-9 years instead of 6 years) is possible

3.5.4 Procedure for grants

For both State Government administration and for voluntary organization after they submit their proposal regarding 1) utilization of grants 2) staff, programmes both existing and new, 50% of the grant of the approved grant for the year is released as first installment, the remaining 50% of the grant will be sanctioned as soon as the State administration or voluntary organization reports utilization of atleast 75% of the grant sanctioned earlier.

3.6 EFFECTIVENESS OF THE IEDC

Despite 100% financial assistance to States in addition to other added facilities such as setting up of the assessment room, resource room etc. The implementation in States was not very effective. The scheme was revised in 1987. The NCERT in 1987 implemented a Project Integrated Education for Disabled (PIED) with the financial assistance from UNICEF in order to mobilize general education system. PIED was designed to strengthen the implementation of the IEDC within the framework and goals of the MPE, that is it emphasized increased enrollment and improved retention of differently abled children in general schools. In the light of successful experience of the PIED in the ten demonstration sites, IEDC was revised in 1992 and now IEDC is being implemented in 27 States and 5 Union Territories through over 22,000 schools benefiting more than 95,000 disabled children. Two polytechnics for disabled students have been setup at Mysore and Kanpur.

3.6.1 Scope of IEDC

IEDC provides educational facilities for the following types of disabled children –

- Children with locomotor handicap (orthopaedically handicapped)

- Mild and moderately hearing impaired

- Partially sighted children

- Mentally handicapped, educable group – IQ 50-70

- Children with multiple handicap (blind and orthopedic, visual impairment and mild hearing handicap)

- Children with learning disabilities

3.7 ROLE OF STATE AGENCIES (DPEP)

The discussion so far has been about IEDC- what it is and what facilities are offered. Let us now see what is the role of State agencies for the implementation of the IEDC.

3.7.1 District Primary Education Programme (DPEP)

Background

In 1992 the Central Advisory Board on Education (CABE) completed a revision on the national policy on Education calling for an integrated approach to primary education development focused on the district level. The result has been primary education Programme, the most intensive effort by the central Government to increase enrollment, retention and achievement in primary education.

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The DPEP was launched in 1994 to achieve the objectives of Universalization of Primary Education (UPE). The programme takes a holistic view of primary education development and seeks to operationalize the strategy UPE, through district specific planning with emphasis on decentralized management, participatory process, empowerment and capacity building at all levels.

The programmes new initiative is providing integrated education to disabled children so, it's important that we know the functioning of DPEP.

3.7.2 Kind of Scheme

DPEP is a centrally sponsored scheme, 85% of the project cost is shared by the Government of India and 15% by the concerned State Government. Both the Central share and State share are passed on to the State implementation societies directly as Grants. The Government of India Share is resourced by external funding such as western Governments, World Bank, UN organizations etc.

The thrusts of DPEP are:

- Decentralization

- Improved pedagogy through localization of the curriculum and teacher training programmes

- Active improvement of index of gender equity (a measure of enrollment of girls) and index of social equity (a measure of enrollment of schedule castes and schedule tribes)

3.7.3 Objectives of DPEP

The programme aims at providing access to primary education to all children, reducing primary dropout rates to less than 10%, that is ensuring retention, increasing learning achievement of primary school students by 25% and reducing the gender and age gap to less than 5% that is ensuring enrollment.

The programme is structured to provide additional inputs over and above the central/State sector schemes for elementary education programmes filling the existing gaps in the development of primary education. It seeks to revitalize the existing system.

The programme components include construction of classrooms and new schools, opening of non formal/ alternative schooling centers, appointment of new teachers, setting up of early childhood education centers, strengthening of State council of educational research and training (SCERT)/ district institutions of educational training (DIET's).

A new initiative in providing distance education for teachers training has also been incorporated

3.7.4 Efficacy of the scheme

The programme was launched in 42 Districts of 7 States in 1994, now it covers a total of 219 Districts in 15 States namely Assam, Haryana, Karnataka, Himachal Pradesh, Kerla, Tamilnadu, Madhya Pradesh, Guajrat, Orissa, Andhra Pradesh, West Bengal, Uttar Pradesh, Rajhastan and Bihar. Further expansion of DPEP in 9 districts of Rajhastan, 8 Districts of Orissa and 6 districts of Gujarat are in the pipeline.

3.8 SUMMARY

IEDC was started with the objective of providing educational opportunities to children with disabilities under the general school system so as to facilitate their inclusion.

Under the scheme 100% financial assistance is provided to the States and Non Governmental Organizations. Assistance is also provided for setting up resource center surveys and assessment of disabled children, purchase and produ ion of instructional material and training and orientation of teachers. It is being implemented in 27 States and 5 Union Territories.

3.9 CHECK YOUR PROGRESS

- How did the scheme IEDC come up?
- Explain the purpose of IEDC.
- Once the State Government decides to implement the IEDC, what are the steps taken to ensure implementation?
- What are the facilities available for the orthopaedically handicapped?
- What are the instructional facilities to the disabled children?
- How can DPEP help in the implementation of IEDC?

3.10 POINTS FOR DISCUSSION AND CLARIFICATION

After going through the unit you may like to haved further Clarification and Discussion on some Points.

3.10.1 Points for discussion

3.10.2 Points for clarification

3.11 REFERENCES

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UNIT 4: ASSISTIVE DEVICES, ADAPTATIONS, INDIVIDUALIZED EDUCATION PLAN, PERSON CENTERED PLAN, LIFE SKILL EDUCATION

STRUCTURE

1   Introduction

2   Objectives

3   Definitions

4   Summary

5   Revision

6   Assignment/Activity

7   Points For Discussion And Clarification

8   References / Further Readings

4.1 INTRODUCTION

The dominating feature in the history of Disabled people has always been in their isolation and exclusion the long march towards integration and participation started many years ago.

On 25th September 1985 the Central Government constituted a new Ministry of Welfare by bringing the subject of handicapped welfare under one of its 5 bureaus. The centre is responsible for formulating welfare policies and programs apart from co-ordinating guiding or promoting implementation of welfare services by State Government.

The Ministry of Social Justice and Empowerment is the nodal ministry for all policies / issues relating to the welfare of persons with disabilities.

Assistive technology (AT) is a generic term that includes assistive, adaptive, and rehabilitative devices for people with disabilities.

Assistive technology for people with intellectual disabilities can assist the person with communication, with activities of daily living such as dressing or cooking, with safety, and with mobility.

Communication boards are boards or pages in a book that have pictures and words that a person can point to in order to express themselves. Some people may have extensive books with many options, and others may have much smaller books. Be aware that not all books will have a way for a person to communicate that they have experienced domestic or sexual violence. For some people who use communication boards, non-verbal communication is a large part of their communication.

The Individualized Education Program (IEP) is the "road map" to your child's education. It is both a process and a product. Specific steps lead to the development of the document. Chapter Three walks you through the steps in the process. It explains what happens at each stage and identifies the participants and their roles and responsibilities.

The process is as important as the product. It begins with conducting tests and assessments, then knowledgeable school personnel and parents meet to determine whether the student needs special education services. The develop-ment of an IEP requires that you think through your priorities for your child deeply and carefully. The process concludes with a lengthy document, an individualized educational plan. The plan is designed to address the individual strengths and weaknesses of the student. But equally important, the IEP is the avenue by which parents become equal partners in educational decisions about their child. By planning together, parents and professionals develop, monitor and evaluate a program that benefits the child.

Sometimes parents know at birth or shortly after that their child will need special help and services. At other times a learning difficulty does not become apparent until the child grows older and matures. Each district adopts and maintains its own written procedures for identifying those students ages 3-21 who reside within the local school district who may be educationally disabled and who are not receiving special education and/or related services. Children under age 3 who may experience developmental delays or disabilities must be referred to early intervention programs or other appropriate services.

ADVOCACY TIPS DURING IDENTIFICATION

1. Parents can identify that their child may be experiencing physical, sensory, emotional, communication, cognitive and social difficulties.

2. Parents can initiate the identification process themselves. SPAN recommends that all such requests be made in writing.

3. Parents must be provided written documentation of the interventions attempted in general education settings.

4. Parents should monitor the intervention period closely and see evidence of progress. If not, a formal written request for evaluation by the child study team should be made.

5. If the district in writing refuses to evaluate your child, your options are:

    a. Mediation
    b. Due process hearing

All evaluations must be completed in a timely manner. After receiving parental consent for initial evaluation, the school district has 90 days to complete the evaluation, determine eligibility and, if the child is eligible, develop and implement the IEP.

When a child turns three years old before the end of a school year, your school district may opt to contract services with your Early Intervention provider for the remainder of the school year including an extended school year program, if appropriate. There should be no interruption of services.

Parents have the right to ask for written documentation of the law to verify what a Child Study Team or district tells them. Sometimes parents are told that districts don't offer a program or they just don't "do" certain things in the district. Request in writing to receive a copy of citations they refer to. Also, it is wise to bring a copy of the New Jersey Administrative Code 6A:14 to meetings so that accurate references can be made.

If a parent withholds consent for evaluation and the school district feels strongly enough about the need for testing, the school district may request a due process hearing to try to get authorization from the Office of Administrative Law to carry out testing without parental consent. .

A comprehensive law, namely persons with disabilities (Equal opportunities protection of Rights and full participation) Act, 1995, has been enacted and enforced in February 1996. The law deals with both prevention and promotional aspect of the rehabilitation such as education, employment and vocational training, creating of barrier free environment, provision of rehabilitation services for persons with disabilities, institutional services and supportive social security measures like unemployment allowance & a greivance & redressable machinery both at the Central & State level.

The Act provides that the government shall ensure that every child with disability has access to free education in an appropriate environment till the age of 18 years.

In consonance with the policy of providing a complete package of welfare services to the physically and mentally disabled individuals and groups and in order to deal with the multi dimensional problems of the disabled person, National Institutes / Apex level institutes have been set up in each major area of disabilities.

4.2 OBJECTIVES

After going through this unit you will be able to –

- List the National Institutes and schools according to disability.

- Explain the facilities available in the National institutes for identification, education and vocation of the disabled population.

- Make use of the contributions of the institutes by disseminating information to the masses.

- To be equipped to guide the disabled students for the appropriate placement.

We need to know which are the National Institutes and what services they are offering to the disabled. Let's begin with the names and location of the National Institutes.

4.3 NATIONAL INSTITUTES OF DISABILITIES

The six main institutes are spread across the country and are –

- National Institute for the Visually Handicapped, (NIVH), Dehradun.

- National Institute for Orthopaedically Handicapped, (NIOH), Calcutta.

- National Institute for Rehabilitation Training and Research (NIRTAR), Olatur, Cuttack.

- The Institute for the Physically Handicapped, (IPH), New Delhi.

- Ali Yavar Jung National Institute for the Hearing Handicapped (AYJNIHH), Mumbai.

- National Institute for the Mentally Handicapped, (NIMH), Secunderabad.

Let us now know what each institute has to offer what is objectives are so that as teachers you will be able to guide the disabled children to the appropriate centre.

4.3.1 National Institute for the Visually Handicapped, (NIVH), Dehradun

The National Institute for the Visually Handicapped (NIVH), Dehradun, was established in July, 1979. It is a registered society under the Ministry of Social and Women's Welfare.

The objectives of the institute are –

- To promote research.
- To undertake the training of personnel
- To provide certain national level services.

The Institute have the following division

School Division

Training Division

Aids and Appliances Division

Research Division

Book Division

Industrial Psychology Division

The Institutes activites include operating school for the blind, imparting occupational training, running of a sheltered workshop, a braille press, a teacher's training centre and conducting research on several aspects of blindness.

The Institute operates two schools – one each for the blind and for the partially sighted children. The school prepare the blind children for the secondary examination.

For the adult blind persons occupational training in handicrafts, braille typewriting, braille shorthand, music, book binding, radio engineering is provided by the training centre for the Adult Blind.

NIVH has four teacher's training centre which offers a one year diploma course through a common All India Examination.

The Institute has a central braille press which produces braille literature in Hindi and English. UNICEF has provided funds to the press for printing or producing braille text books upto Class VI for free distribution. The library of the institute circulates braille books free of charge to blind readers all over the country.

There is also a workshop where various aids and appliances the braille slate, arithmetic slate, plastic styles, chess board, playing cards, pocket frame, folding stick, braille scale etc. are produced at low cost in the workshop.

The institute has a sheltered workshop and units for rural expansion programmes, management for newly blinded, home management, guidance and counselling, orientation & mobility services.

The courses run by NIVH are –

- Diploma in teaching the Blind.
- Contact cum correspondence courses for Inservice Teachers of the Blind.
- Diploma course for Secondary Teachers of Visually Handicapped.
- Training course for Primary School Teachers of Visually Handicapped.
- B.Sc. (Hons) in Physiotherapy
- B.Sc. (Hons) in Occupational Therapy
- Tw Years Diploma Course in Orthotics & Prosthetics.

4.3.2 National Institutes for the Orthopaedic Handicap, (NIOH), Calcutta.

For promoting, education training and rehabilitation of the Orthopaedically handicapped children and adults suffering from a wide range of disabilities which limit their mobility, muscular co-ordination and manipulating ability, the NIOH was set up at Calcutta. It was registered as an autonomous society in April, 1982.

The objectives of the Institute are –

- To develop manpower for providing services to the orthopaedically handicapped (OH) population, namely, training of Physiotherapist, Occupational therapist, Orthopaedic and Prosthetic Technicians, Employment and Placement Officers, Vocational Counsellors.
- To develop model services for the Orthopaedic Handicapped population in the areas of restorative surgery, aids and appliances, vocational training etc.
- To provide services and special services to the Orthopaedically Handicapped people.
- To conduct and sponsor research into all aspects, related to the total rehabilitation of the Orthopaedically Handicapped.
- To standardise the aids and appliances for the Orthopaedically Handicapped and promote their manufacture and distribution.
- To serve as the Apex Documentation & Information Centre in the area of the Orthopaedically Handicapped.
- To provide consultancy services to the State Governments and voluntary organisations working for the rehabilitation of the Orthopaedically Handicapped.

4.3.3 National Institute for Rehabilitation Training and Research (NIRTAR), Olatur, Cuttack.

This came into existence when National Institute of Prosthetic and Orthotic Training, a Unit of Artificial Limbs Manufacturing Corporation of India established in 1975, was converted into an autonomous body on February 22nd, 1984 under the Ministry of Social Justice and Empowerment.

The objectives of NIRTAR are –

- To sponsor or co-ordinate the training of personnel such as Doctors, Prosthetists, Orthotists, Prosthetic and Orthotic Technicians, Physiotherapists, Occupational Therapists and such other personnel for the rehabilitation of the physically handicapped.

- To conduct, sponsor, co-ordinate or subsidise research on bio medical engineering leading to the effective evaluation of the mobility aids for the Orthopaedically Handicapped or suitable surgical or medical procedures or development of new aids.

- To promote, distribute, subsidise the manufacture of prototype designed aids to promote any aspects of the education and rehabilitation therapy of physically handicapped (PH).

- To develop models of service delivery programs for rehabilitation.

- To undertake vocational training, placement and rehabilitation of the physically handicapped.

- To promote a disseminate information on rehabilitation in India and abroad.

- To undertake any other action in the area of rehabilitation of the physically handicapped.

- All the income is utilised for the fulfilment of above aims and objectives.

A Regional Rehabilitation Training Centre is also attached to this Institute.

NIRTAR also runs several courses.

- Diploma in Prosthetic / Orthotic Engineering.
- Degree in Physiotherapy.
- Degree in Occupational Therapy.
- Short term courses also are run for Orthopaedic Surgeons, Physiotherapy Medicine Therapists in rehabilitation.
- Psychologists, teachers, social workers also are provided with orientation course.

4.3.4 The Institute for the Physically Handicapped, (IPH), New Delhi.

The Institute for the Physically Handicapped is an autonomous body, registered under the Societies Registration Act, 1860 and is an apex level institute in the field of man power development for rehabilitation of the physically disabled persons established in the year 1976 by the Government of India, Ministry of Social Justice & Empowerment.

The objectives of the Institutes are –

- Conducting Physiotherapy / Occupational Therapy courses of 3 ½ years each.
- Conducting Diploma in Prosthetic / Orthotic Engineering of 2 ½ years duration.
- Running workshop for fabrication or Orthotic and Prosthetic Appliances.
- Operating Physiotherapy, Occupational Therapy and Speech Therapy Outpatient Department Services.
- Running a Special Education School upto primary level for the Orthopaedically Handicapped children and a social and vocational guidance unit.

4.3.5 Ali Yavar Jung National Institute for the Hearing Handicapped (AYJNIHH), Mumbai.

The Institute has been established by the Government of India in 1983. It is named in honour of the Late Ali Yavar Jung (Ex-Governor, Educationist & Humanitarian) in appreciation of his interest in the hearing impaired and as a fructification of his efforts towards establishing the institute. It is an apex institute in the field of rehabilitation in the country.

The objectives of the institutes are –

- Training of manpower to produce a cadre of highly specialised professionals for the services of the hearing impaired. B.Ed. (HI) at Mumbai centre, Diploma in hearing, language and speech at Delhi and Patna Regional centres are conducted.
- To conduct community based research to increase and improve the rehabilitation services and to reach out to larger number of Hearing Impaired persons. Some research is also aimed at evolving modules and diagnostic tests that can be used or replicated by other organisation.
- To develop material for educational training and clinical purposes.

The AYJNIHH has established regional centres at New Delhi, Calcutta & Secunderabad, and some Non Government Organisation collaborated centres at Valakam, Chennai, Allahabad, Bangalore for Diploma Courses under the Rehabilitation Council of India.

In addition to this the Institute runs an Adult deaf training centre at Secunderabad.

AYJNIHH provides comprehensive diagnostic, therapeutic, educational and vocational services to the hearing & speech impaired.

The services which are available are –

(1)   Evaluation and diagnosis of hearing

(2)   Educational evaluation and guidance.

(3)   Selection and fitting of hearing aids and ear moulds.

(4)   Psychological evaluation.

(5)   Psychotherapy, behaviour therapy and play therapy.

(6)   Medical consultation.

(7)   Speech and language therapy.

(8)   Parent guidance and counselling.

(9)   Vocational training and placement.

(10)   Referral and follow-up.

(11)   Outreach and extension services

(12)   Certification of hearing disability.

The courses run by AYJNIHH are D.Ed. (Deaf), B.Ed. (Deaf), B.Sc. (AST), D.C.D.

4.3.6 National Institute for the Mentally Handicapped, (NIMH), Secunderabad.

The NIMH was established in 1984 as an autonomous body under the Ministry of Welfare, Government of India. It serves as an apex body with emphasis on training and research.

The objectives of the institute are –

- To develop appropriate models of care and habilitation for the Mentally Retarded persons appropriate to Indian conditions.

- To develop manpower for delivery of services to the Mentally Handicapped.

- To identify, conduct and co-ordinate research in the area of mental retardation.

- To provide consultancy services to voluntary organisation in the area of Mental Handicapped and to assist them.

- To serve as a documentation and information centre in the area of Mentally Retardation.

- To acquire relevant data, to asses the magnitude, causes, socio-economic factors etc. of Mentally Retarded in the country.

- To promote and stimulate growth of various kind of quality services for persons with Mentally Retardation.

At the institutes head quarters there are six departments namely as medical science, psychology, special education, speech pathology and audiology, information and documentation services and vocational training.

The institute has three regional centres at Mumbai, Calcutta and New Delhi.

The National institute runs preservice, inservice seminars and other training programmes. The other courses are –

(1) Three years Bachelor's Degree Course in Mental Retardation (BMR) at Secunderabad.

(2) Diploma Course in Mental Retardation

(3) Post Graduate Diploma

(4) B.Ed. (Special Education) MR

The institute organises 10-12 short term courses also. Covering areas like –

portage, vocational training, behavior modification, media workshop in disability.

Apart from this it also holds a national workshop every year to serve as a

platform to professionals working in the field of Mental Retardation to exchange

information including parent teacher programs.

The institute provides a multi disciplinary team services for helping the Mentally Handicapped persons and their parents. After identifying the needs intervention programs are decided which includes appropriate referrals, providing consultancy to other schools regarding the remediation.

There is also a special school "Karvalambam" kendra which admits 85 Mentally Retarded in the age of 3-16 years. They are grouped into pre-primary, primary, secondary and pre-vocational level.

To reach people living in remote areas the Institute conducts rural camps. The activities include

(1) Screening and Case Detection

(2) Individual assessment and counselling.

(3) Training of parent

(4) Creation of awareness

(5) Reference.

In collaboration with NCERT and Central Institute of Educational Technology,

the Institute has produced programmes which are regularly telecast as a part of

the school training programs on Doordarshan every alternate Saturday. It is directed towards parents of Mentally Retarded Children and provide instructions for home management of the children.

4.4 SCHOOLS FOR THE HANDICAPPED CHILDREN

The knowledge of the National Institutes alone is not sufficient of the education of the children as these institutes are not available everywhere. What is required is the knowledge of the schools available in your neighbourhood where you can refer the children with disabilities for regular and immediate assessment, education and vocational training following are the list of the schools according to the areas of disability.

4.4.1   Schools for the Hearing Impaired

The first time in 1884 Bombay Institution for the deaf & mute in Mumbai was established.

- Calcutta Deaf and Dumb School - It provides education for Deaf Children in Calcutta. It was set up in 1893.
- Clarke school for the Deaf - It provides education to the Hearing Impaired and Mentally Challenged Children in Chennai.
- MGR Higher Secondary School and Home for the Speech and Hearing Impaired – It provides shelter for those with speech and hearing disabilities in Chennai.
- Nilam Patel Bahushrut Foundation – It provides education and then main streaming in regular schools for children with Hearing Impairment in Mumbai.
- Vagdevi – It provides assessment, diagnosis and intervention for children with speech and handicapped in rural areas of Bangalore.
- National Society for Equal Opportunities for the Handicapped (NSEOH) – It provides education, vocational training, work and recreation for all children with hearing impairment in Mumbai.
- ARPAN -   It is a diagnostic and development centre for the multiply handicapped - It provides education, rehabilitation for children with Hearing Impairment, Mental Retardation in Baroda.
- Akshar Trust for Hearing Impaired - The trust offers formal school programs, teacher training program, infant program to the hearing impaired in Baroda.

- AJAED – It develops educational opportunities and increases the educational facilities for the Deaf in India and gives free literature to uneducated deaf people in India.

- Nagpurkar Hearing Services – It provides services for rehabilitation of Hearing Impaired population. It provides all types of hearing instruments and the assessment, management of Hearing Impaired is also available.

- Maharashtra Deaf Fellowship of India - It reaches out to the deaf in Maharashtra. The primary focus is on education through schools & hostels for girls in Aurangabad.

- EAR – Education, Audiology and Research Society - It provides education and assessment of the Hearing Impaired in Mumbai.

4.4.2 Schools for the Visually Impaired / Blind

The first centre was set up in July 1943 as Saint Dunstan's Hostel in Dehradun for Indian War Blinded.

- NAB – National Association for the Blind was set up in 1952 in Mumbai and Bangalore - It provides education, socio-economic rehabilitation of Children with Visual Impairment.

- Blind People's Association – It provides education and services for the Blind and Visually Impaired in Ahemdabad.

- Sri Rama Krishna Mission - It provides education for school children who are blind in Coimbatore.

- Faith India - It provides education and other services to children with Visual Impairment in Ernakulam.

- Blind Relief Association - It provides education to Children with Visual Impairment in Delhi.

- Shishu Raksha - It is the Karnataka State Council for Child Welfare in Bangalore.

- Kerala Federation of the Blind - It provides Braille shorthand and computer training, braille transcription aid, mobility and orientation program for the children with visual impairment.

- Victoria Memorail School - It provides education and it is a residential school for children with Visual Impairment in Mumbai.

- Rakum School for the Blind - It runs a free residential school for the Visual Impaired and provides training in reading and writing through braille, mobility training for the Visually Impaired, counselling and guidance also in Bangalore.

- Royal Common Wealth Society for the Blind - It works for the prevention and cure of blindness and rehabilitation of the blind. It gives financial assistance to organise free eye camps in rural areas. It is located in Mumbai.

- Rotary Club of Chandigarh – It is an organisation which helps children with braille in Chandigarh.

4.4.3 Schools for the Mentally Handicapped

The first school mentally retarded was set up in Mumbai in 1944 – Jai Vakeel School - It provides research, education and vocational training to the children with mental retardation.

- In 1954, All India Institutes of Mental Health was established.

- Kamayani School in 1964 was set up for the education and vocational training of the Mentally retarded individuals.

- Model school for Mentally Deficient – It provides educational, pre-vocational and rehabilitation services to students with Mentally Retardation in New Delhi. It has an attached Hostel also.

- Arushi – It provides education & pre-vocational training to children with Mental Retardation and learning disabilities in Mumbai.

- Karvalamban – It provides education for the Mentally Handicapped in Secunderabad.

- Central Institute for Mentally Retarded - It provides education, rehabilitation services to children with Mental Retardation in Trivandrum.

- Spandeen – It provides education to children with Mental Handicap in Baroda.

- MITHRA – Is an organisation providing rehabilitation to the Mentally Retarded in Bangalore.

- Ashalaya Home for the welfare of the Mentally Retarded - It provides vocational, physical and remedial training for children with Mental Retardation in Bangalore.

- Association for Mentally Retarded – "Pragati" is a Special School providing education to children with Mental Handicap in Bangalore.

- St. Camilus Training Centre for education of the Mentally Retarded – It provides education for the Mentally Retarded in Kerala.

- Manjunath Social Welfare Association – It provides career guidance and education to children with Mental Retardation and it is also residential school located in Belgaum.

- Canossa Special School – Three R's and art, craft, are provided to children with Mental Retardation in Mumbai.

- Dilkush Special School – It provides training in self-care, workshops, clinical services etc. to children with Mental Retardation in Mumbai.

- SPJ Sadhana School – It provides education, vocation, pre-vocational training and it also has sheltered workshop in Mumbai.

- Amar Jyoti – It provides education for the Mentally Retarded in Delhi.

- Ernakulam Women's Association - It provides education and vocational training for the Mentally Retarded and Deaf in Cochin.

- Alphons Social Centre - It is a school for Mentally Retarded providing education to the Mentally Retarded students in Ernakulam.

4.4.4 School for the Orthopaedically Handicapped

The schools for the Orthopaedically Handicapped or were set up first in 1947.

- The society of rehabilitation of crippled children – Mumbai. This maintains a Children's Orthopaedic Hospital and provides services for Cerebral Palsy and Polio Children

- Cheshire homes founded in 1948 by Leonard Cheshire. In India it has 19 homes, Bangalore.

- In 1955 Fellowhip of the physically handicapped was set up in Mumbai. It alleviates the suffering of persons having Orthopaedic Handicaps.

- Spastic society of India started in Delhi in 1978 and later in Mumbai, Bangalore offers Education, Speech therapy, Occupational therapy, Physiotherapy to students. It is now known as National Resource Centre for inclusion.

- Society for the education of the crippled in Mumbai offers education for the Orthopaedically Handicapped.

- Life Help Centre for the Handicapped in Adyar, Madras offers Special Education to Orthopaedically Handicapped and Intellectually Disabled Children.

- Educational Organization of Tenali – provides education to Physically Handicapped Children.

- Punarjanman; A Special School – provides education for the physically challenged children in Coimbatore.

- Amar Seva Sangam – Centre for Physically Handicapped - It provides education and rehabilitation to the physically handicapped in Tirunelveli district.

- The J.S.S. Polytechnic for Physically Handicapped - Offers courses on computer science, engineering, architecture and commercial practice for student who are Physically Handicapped or Deaf.

- Destitute Home for children with Physically Handicapped – provides shelter and education for children with Physical Handicap in Mysore.

- Association of the Physically Handicapped – It provides education for children with physical handicap in Belgaum.

- Dada Amar Rehabilitation Centre for Cerebral Palsy – It provides education and rehabilitation to children with Cerebral Palsy in Bangalore.

- Disha – Education for the Disabled – It provides special education, vocational training and rehabilitation of spastic children.

- Rotary Club of Delhi – It is involved in vocational training projects for physically challenged.

- Dr. Ambedkar Institute for Physically Handicapped – It offers courses on engineering, commercial practice for students with Physical Handicap in Kanpur.

- Jyot Charitable Trust – It provides aids and artificial limbs to physically handicapped children in Chandigarh.

- Sanjeevan – It provides education for the Physically Handicapped and Mentally Handicapped in Patna.

- UDAAN for the Disabled - It provides Training, Rehabilitation and Early Medical Intervention with integration the children with Cerebral Palsy, Mental Retardation, etc. in Delhi.

4.5 SUMMARY

We can summarise the activities of the National Institutes saying that the thrust areas of the National Institutes are man-power development, development of models of services delivery programs for rehabilitation, reaching services to the unreached through out reach activities and research and development in the area of bio-medical engineering, mental retardation and visual impairment. The schools help in availing of services in the neighbourhood.

4.6 CHECK YOUR PROGRESS

- How did the need for National Institutes arise?

- List the National Institutes and explain the objectives of NIMH and NIVH.

- Are NIRTAR and NIOH related in any way?

- Why is it essential to know the services of these institutes for a special educator?.

- How does the knowledge of special school in the various area benefit you as a special educator?

4.7   POINTS FOR DISCUSSION AND CLARIFICATION

After going through the unit you may like to haved further Clarification and Discussion on some Points.

4.8.1 Points for discussion

4.8.2 Points for clarification

4.9 REFERENCES

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UNIT 5: VOCATIONAL TRAINING AND INDEPENDENT LIVING

STRUCTURE

1   Introduction
2   Objectives
3   Definitions
4   Summary
5   Revision
6   Assignment/Activity
7   Points For Discussion And Clarification
8   References / Further Readings

1 INTRODUCTION

The dominating feature in the history of Disabled people has always been in their isolation and exclusion the long march towards integration and participation started many years ago.

On 25th September 1985 the Central Government constituted a new Ministry of Welfare by bringing the subject of handicapped welfare under one of its 5 bureaus. The centre is responsible for formulating welfare policies and programs apart from co-ordinating guiding or promoting implementation of welfare services by State Government.
The Ministry of Social Justice and Empowerment is the nodal ministry for all policies / issues relating to the welfare of persons with disabilities.

A comprehensive law, namely persons with disabilities (Equal opportunities protection of Rights and full participation) Act, 1995, has been enacted and enforced in February 1996. The law deals with both prevention and promotional aspect of the rehabilitation such as education, employment and vocational training, creating of barrier free environment, provision of rehabilitation services for persons with disabilities, institutional services and supportive social security measures like unemployment allowance & a greivance & redressable machinery both at the Central & State level.

The Act provides that the government shall ensure that every child with disability has access to free education in an appropriate environment till the age of 18 years.

In consonance with the policy of providing a complete package of welfare services to the physically and mentally disabled individuals and groups and in order to deal with the multi dimensional problems of the disabled person, National Institutes / Apex level institutes have been set up in each major area of disabilities.

Persons with disability in India face many challenges when looking to develop employable skills and in gaining meaningful employment. While India has ratified the United Nations Convention on the Rights of People with disability (UNCRPD), persons with disability continue to face many difficulties in the labour market. According to census 2011, there are 2.68 Crore Persons with Disabilities (PwDs) in India (1.50 crore male and 1.18 crore female PwDs). Even though, disabled people constitute a significant percentage of the population of India, their need for meaningful employment largely remains unmet, in spite of implementation of "The Persons with Disability Act, 1995". In the overall population, the number of disabled is proportionately higher in rural areas, accentuated by general poverty considerations and poor access to health services. The rural disabled are significantly disconnected from skills and markets. Improving vocational training and employment opportunities for people with disability is a critical element for enhancing the quality of life for individual with disability, their families, but there are also substantial gains for the broader economy. There are substantial costs to individuals and to society associated with these poor employment outcomes for people with disability. The World Bank considers that leaving people with disability, outside the economy, translates into a foregone GDP of about 5% to 7%. In addition to the individual and family benefits, there is also a strong economic imperative to increased labour force participation which will help to address country's shortage of skilled labour force, while at the same time reducing fiscal pressures associated with welfare dependency.

The vocational / skill training would be provided by a network of skill training providers led by NGOs, private training institutions and Public Sector/Govt. Sector training institutions like VRCs. The vocational training would be provided by a cluster of training providers scattered over the country, having an established track record of providing skill training with high employability ratio. These training partners would be provided outcome based financial support by Deptt. of Empowerment of Persons with Disabilities (DEPwD) and Ministry of Skill Development & Entrepreneurship (MSDE). Synergistic support would be provided to these training providers by the National Institutes of DEPwD, training institutions of Ministry of Human Resource Development, Ministry of Micro, Small & Medium Enterprises, other Central Ministries and State Governments.

Expression of Interest will be invited from eligible organizations to get registered as "training partner" to provide skill training to PwDs under the scheme by issuing an advertisement in the leading newspapers and through the websites and other media outfits. The pro-forma for application and list of documents to be attached are given in ANNEXURE-I and ANNEXURE-II respectively. Applications received for empanelment as training partners will be scrutinised and placed before a Selection Committee who will make selection based on the criteria of previous experience, expertise, infrastructure and manpower available and other similar relevant considerations. The selection of training partners will be a continuous process.

Vocational training includes:

PAPER WORK

The projects under this area could include: Card Making, assorted Stationary products like pen stands, paper holders, Table Mats, Books and associated products, Household accessories like trays, lanterns. The skill training will be in areas of tracing, drawing, cutting, folding, sticking, and decorating among others.

STITCHING

Here the main task is Cloth Work and Embroidery. The projects in this area could include: Embroidery on table mats, aprons, towels, embroidery on baby dresses and wrappers and making of the same, beading on dupattas, sarees and other associated accessories, pillows for children, baby blankets. The students are taught different stitches depending on their capability which will then be incorporated into the above mentioned projects.

CANDLE MAKING

Here the students will learn the fine nuances of Candle Making. They are taught safety and care while working with hot wax and fire. They are taught to make various candles and the procedures associated with the same. Some kind of candles being taught will be taper candles, mould candles, floating candles among others. The students are also taught how to decorate the same.

PAINTING/ART

Here the students are allowed to experience the world of colour with no compulsion of creating anything that will be judged as right or wrong. They are guided to feel what they are painting, at the same time all that they do is displayed so that they can observe and appreciate their work as well as that of others. They are taught to use different mediums and different textures.

CRAFT

The students are taught specific crafts that are festival or season based. This is associated with the Youth Guidance program where they learn about different things. The association with crafts and the festivals gives the students the opportunity to experience new things and expand their knowledge base. All crafts created are displayed.

CERAMIC WORK

This is a new activity being introduced. This is a highly skilled area so only one or two students are chosen to be trained in this task. It consists of tracing and painting on ceramic tiles, plates or cups among other things and then displaying them. Once a mastery level has been achieved the same can be marketed and profits shared amongst the trainees.

FELTING

This is an activity that works with creating things with wool. It is a wonderful task that commands concentration at the same time giving a smooth and endearing feeling on the hands. It is an enjoyable activity and many things can be created with the wool. The projects that can be undertaken are cushion covers, dolls, pouches, purses, hair accessories among others.

COOKING

This is a bi-monthly class that is conducted with a group of students and a teacher. The group will be in charge of planning the meal, listing the ingredients, noting the recipe to distribute to peers and preparing the meal. They will also have the responsibility of setting the table and presenting the food in a proper way. This will rotate between lunch and snacks.

BAKING

The students again are divided into groups will be responsible for the weekly baking class. This will entail baking things like cakes, cookies, biscuits, pies among other things. The students are taught the right procedures and methods and quality control. It will then be marketed once a certain mastery level has been achieved.

GARDENING

The students do organic backyard gardening in the post monsoon session. All staff and students will participate in the said activity. This allows all to have an exposure to nature and learn to appreciate where the food comes from. This is also a calming activity as there is no expectation of perfection but just the ability to be one with nature.

BAKING

The students again are divided into groups will be responsible for the weekly baking class. This will entail baking things like cakes, cookies, biscuits, pies among other things. The students are taught the right procedures and methods and quality control. It will then be marketed once a certain mastery level has been achieved.

2 OBJECTIVES

After going through this unit you will be able to –

- List the National Institutes and schools according to disability.

- Explain the facilities available in the National institutes for identification, education and vocation of the disabled population.

- Make use of the contributions of the institutes by disseminating information to the masses.

- To be equipped to guide the disabled students for the appropriate placement.

We need to know which are the National Institutes and what services they are offering to the disabled. Let's begin with the names and location of the National Institutes.

3 NATIONAL INSTITUTES OF DISABILITIES

The six main institutes are spread across the country and are –

❖   National Institute for the Visually Handicapped, (NIVH), Dehradun.

❖   National Institute for Orthopaedically Handicapped, (NIOH), Calcutta.

❖   National Institute for Rehabilitation Training and Research (NIRTAR), Olatur, Cuttack.

❖   The Institute for the Physically Handicapped, (IPH), New Delhi.

❖   Ali Yavar Jung National Institute for the Hearing Handicapped (AYJNIHH), Mumbai.

❖   National Institute for the Mentally Handicapped, (NIMH), Secunderabad.

Let us now know what each institute has to offer what is objectives are so that as teachers you will be able to guide the disabled children to the appropriate centre.

4.3.4   National Institute for the Visually Handicapped, (NIVH), Dehradun

The National Institute for the Visually Handicapped (NIVH), Dehradun, was established in July, 1979. It is a registered society under the Ministry of Social and Women's Welfare.

The objectives of the institute are –

•   To promote research.

•   To undertake the training of personnel

•   To provide certain national level services.

The Institute have the following division

School Division

Training Division

Aids and Appliances Division

Research Division

Book Division

Industrial Psychology Division

The Institutes activites include operating school for the blind, imparting occupational training, running of a sheltered workshop, a braille press, a teacher's training centre and conducting research on several aspects of blindness.

The Institute operates two schools – one each for the blind and for the partially sighted children. The school prepare the blind children for the secondary examination.

For the adult blind persons occupational training in handicrafts, braille typewriting, braille shorthand, music, book binding, radio engineering is provided by the training centre for the Adult Blind.

NIVH has four teacher's training centre which offers a one year diploma course through a common All India Examination.

The Institute has a central braille press which produces braille literature in Hindi and English. UNICEF has provided funds to the press for printing or producing braille text books upto Class VI for free distribution. The library of the institute circulates braille books free of charge to blind readers all over the country.

There is also a workshop where various aids and appliances the braille slate, arithmetic slate, plastic styles, chess board, playing cards, pocket frame, folding stick, braille scale etc. are produced at low cost in the workshop.

The institute has a sheltered workshop and units for rural expansion programmes, management for newly blinded, home management, guidance and counselling, orientation & mobility services.

The courses run by NIVH are –

- Diploma in teaching the Blind.

- Contact cum correspondence courses for Inservice Teachers of the Blind.

- Diploma course for Secondary Teachers of Visually Handicapped.

- Training course for Primary School Teachers of Visually Handicapped.

- B.Sc. (Hons) in Physiotherapy

- B.Sc. (Hons) in Occupational Therapy

- Two Years Diploma Course in Orthotics & Prosthetics.

4.3.5 National Institutes for the Orthopaedic Handicap, (NIOH), Calcutta.

For promoting, education training and rehabilitation of the Orthopaedically handicapped children and adults suffering from a wide range of disabilities which limit their mobility, muscular co-ordination and manipulating ability, the NIOH was set up at Calcutta. It was registered as an autonomous society in April, 1982.

The objectives of the Institute are –

- To develop manpower for providing services to the orthopaedically handicapped (OH) population, namely, training of Physiotherapist, Occupational therapist, Orthopaedic and Prosthetic Technicians, Employment and Placement Officers, Vocational Counsellors.

- To develop model services for the Orthopaedic Handicapped population in the areas of restorative surgery, aids and appliances, vocational training etc.

- To provide services and special services to the Orthopaedically Handicapped people.

- To conduct and sponsor research into all aspects, related to the total rehabilitation of the Orthopaedically Handicapped.

- To standardise the aids and appliances for the Orthopaedically Handicapped and promote their manufacture and distribution.

- To serve as th Apex Documentation & Information Centre in the area of the Orthopaedical Handicapped.

- To provide c nsultancy services to the State Governments and voluntary organisations working for the rehabilitation of the Orthopaedically Handicapped.

4.3.6 National Inst ute for Rehabilitation Training and Research (NIRTAR), Olatur, Cutta k.

This came into existe e when National Institute of Prosthetic and Orthotic Training, a Unit of Artificial Lim s Manufacturing Corporation of India established in 1975, was converted into an au nomous body on February 22nd, 1984 under the Ministry of Social Justice and Em owerment.

The objectives of NIF 'AR are –

- To sponsor r co-ordinate the training of personnel such as Doctors, Prosthetists, (thotists, Prosthetic and Orthotic Technicians, Physiotherapists, Occupational herapists and such other personnel for the rehabilitation of the physically han icapped.

- To conduct, ponsor, co-ordinate or subsidise research on bio medical engineering l ding to the effective evaluation of the mobility aids for the Orthopaedical Handicapped or suitable surgical or medical procedures or development new aids.

- To promote, d tribute, subsidise the manufacture of prototype designed aids to promote any pects of the education and rehabilitation therapy of physically handicapped (H).

- To develop m dels of service delivery programs for rehabilitation.

- To undertake ocational training, placement and rehabilitation of the physically handicapped.

- To promote a isseminate information on rehabilitation in India and abroad.

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- To undertake any other action in the area of rehabilitation of the physically handicapped.
- All the income is utilised for the fulfilment of above aims and objectives.

A Regional Rehabilitation Training Centre is also attached to this Institute.

NIRTAR also runs several courses.

- Diploma in Prosthetic / Orthotic Engineering.
- Degree in Physiotherapy.
- Degree in Occupational Therapy.
- Short term courses also are run for Orthopaedic Surgeons, Physiotherapy Medicine Therapists in rehabilitation.
- Psychologists, teachers, social workers also are provided with orientation course.

4.3.7 The Institute for the Physically Handicapped, (IPH), New Delhi.

The Institute for the Physically Handicapped is an autonomous body, registered under the Societies Registration Act, 1860 and is an apex level institute in the field of man power development for rehabilitation of the physically disabled persons established in the year 1976 by the Government of India, Ministry of Social Justice & Empowerment.

The objectives of the Institutes are –

- Conducting Physiotherapy / Occupational Therapy courses of 3 ½ years each.
- Conducting Diploma in Prosthetic / Orthotic Engineering of 2 ½ years duration.
- Running workshop for fabrication or Orthotic and Prosthetic Appliances.
- Operating Physiotherapy, Occupational Therapy and Speech Therapy Outpatient Department Services.
- Running a Special Education School upto primary level for the Orthopaedically Handicapped children and a social and vocational guidance unit.

4.3.8 Ali Yavar Jung National Institute for the Hearing Handicapped (AYJNIHH), Mumbai.

The Institute has been established by the Government of India in 1983. It is named in honour of the Late Ali Yavar Jung (Ex-Governor, Educationist & Humanitarian) in appreciation of his interest in the hearing impaired and as a fructification of his efforts towards establishing the institute. It is an apex institute in the field of rehabilitation in the country.

The objectives of the institutes are –

- Training of manpower to produce a cadre of highly specialised professionals for the services of the hearing impaired. B.Ed. (HI) at Mumbai centre, Diploma in hearing, language and speech at Delhi and Patna Regional centres are conducted.

- To conduct community based research to increase and improve the rehabilitation services and to reach out to larger number of Hearing Impaired persons. Some research is also aimed at evolving modules and diagnostic tests that can be used or replicated by other organisation.

- To develop material for educational training and clinical purposes.

The AYJNIHH has established regional centres at New Delhi, Calcutta & Secunderabad, and some Non Government Organisation collaborated centres at Valakam, Chennai, Allahabad, Bangalore for Diploma Courses under the Rehabilitation Council of India.

In addition to this the Institute runs an Adult deaf training centre at Secunderabad.

AYJNIHH provides comprehensive diagnostic, therapeutic, educational and vocational services to the hearing & speech impaired.

The services which are available are –

(13)	Evaluation and diagnosis of hearing

(14)	Educational evaluation and guidance.

(15)	Selection and fitting of hearing aids and ear moulds.

(16)	Psychological evaluation.

(17)	Psychotherapy, behaviour therapy and play therapy.

(18)	Medical consultation.

(19)	Speech and language therapy.

(20)	Parent guidance and counselling.

(21)	Vocational training and placement.

(22)	Referral and follow-up.

(23)	Outreach and extension services

(24)	Certification of hearing disability.

The courses run by AYJNIHH are D.Ed. (Deaf), B.Ed. (Deaf), B.Sc. (AST), D.C.D.

4.3.6 National Institute for the Mentally Handicapped, (NIMH), Secunderabad.

The NIMH was established in 1984 as an autonomous body under the Ministry of Welfare, Government of India. It serves as an apex body with emphasis on training and research.

The objectives of the institute are –

- To develop appropriate models of care and habilitation for the Mentally Retarded persons appropriate to Indian conditions.

- To develop manpower for delivery of services to the Mentally Handicapped.

- To identify, conduct and co-ordinate research in the area of mental retardation.

- To provide consultancy services to voluntary organisation in the area of Mental Handicapped and to assist them.

- To serve as a documentation and information centre in the area of Mentally Retardation.

- To acquire relevant data, to asses the magnitude, causes, socio-economic factors etc. of Mentally Retarded in the country.

- To promote and stimulate growth of various kind of quality services for persons with Mentally Retardation.

At the institutes head quarters there are six departments namely as medical science, psychology, special education, speech pathology and audiology, information and documentation services and vocational training.

The institute has three regional centres at Mumbai, Calcutta and New Delhi.

The National institute runs preservice, inservice seminars and other training programmes. The other courses are –

(5)   Three years Bachelor's Degree Course in Mental Retardation (BMR) at Secunderabad.

(6)   Diploma Course in Mental Retardation

(7)   Post Graduate Diploma

(8)   B.Ed. (Special Education) MR

The institute organises 10-12 short term courses also. Covering areas like – portage, vocational training, behavior modification, media workshop in disability. Apart from this it also holds a national workshop every year to serve as a platform to professionals working in the field of Mental Retardation to exchange information including parent teacher programs.

The institute provides a multi disciplinary team services for helping the Mentally Handicapped persons and their parents. After identifying the needs intervention programs are decided which includes appropriate referrals, providing consultancy to other schools regarding the remediation.

There is also a special school "Karvalambam" kendra which admits 85 Mentally Retarded in the age of 3-16 years. They are grouped into pre-primary, primary, secondary and pre-vocational level.

To reach people living in remote areas the Institute conducts rural camps. The activities include

(6) Screening and Case Detection

(7) Individual assessment and counselling.

(8) Training of parent

(9) Creation of awareness

(10) Reference.

In collaboration with NCERT and Central Institute of Educational Technology, the Institute has produced programmes which are regularly telecast as a part of the school training programs on Doordarshan every alternate Saturday. It is directed towards parents of Mentally Retarded Children and provide instructions for home management of the children.

4.4 SCHOOLS FOR THE HANDICAPPED CHILDREN

The knowledge of the National Institutes alone is not sufficient of the education of the children as these institutes are not available everywhere. What is required is the knowledge of the schools available in your neighbourhood where you can refer the children with disabilities for regular and immediate assessment, education and vocational training following are the list of the schools according to the areas of disability.

4.4.5 Schools for the Hearing Impaired

The first time in 1884 Bombay Institution for the deaf & mute in Mumbai was established.

- Calcutta Deaf and Dumb School - It provides education for Deaf Children in Calcutta. It was set up in 1893.

- Clarke school for the Deaf - It provides education to the Hearing Impaired and Mentally Challenged Children in Chennai.

- MGR Higher Secondary School and Home for the Speech and Hearing Impaired – It provides shelter for those with speech and hearing disabilities in Chennai.

- Nilam Patel Bahushrut Foundation – It provides education and then main streaming in regular schools for children with Hearing Impairment in Mumbai.

- Vagdevi – It provides assessment, diagnosis and intervention for children with speech and handicapped in rural areas of Bangalore.

- National Society for Equal Opportunities for the Handicapped (NSEOH) – It provides education, vocational training, work and recreation for all children with hearing impairment in Mumbai.

- ARPAN - It is a diagnostic and development centre for the multiply handicapped - It provides education, rehabilitation for children with Hearing Impairment, Mental Retardation in Baroda.

- Akshar Trust for Hearing Impaired - The trust offers formal school programs, teacher training program, infant program to the hearing impaired in Baroda.

- AIAED – It develops educational opportunities and increases the educational facilities for the Deaf in India and gives free literature to uneducated deaf people in India.

- Nagpurkar Hearing Services – It provides services for rehabilitation of Hearing Impaired population. It provides all types of hearing instruments and the assessment, management of Hearing Impaired is also available.

- Maharashtra Deaf Fellowship of India - It reaches out to the deaf in Maharashtra. The primary focus is on education through schools & hostels for girls in Aurangabad.

- EAR – Education, Audiology and Research Society - It provides education and assessment of the Hearing Impaired in Mumbai.

4.4.6 Schools for the Visually Impaired / Blind

The first centre was set up in July 1943 as Saint Dunstan's Hostel in Dehradun for Indian War Blinded.

- NAB – National Association for the Blind was set up in 1952 in Mumbai and Bangalore - It provides education, socio-economic rehabilitation of Children with Visual Impairment.

- Blind People's Association – It provides education and services for the Blind and Visually Impaired in Ahemdabad.

- Sri Rama Krishna Mission - It provides education for school children who are blind in Coimbatore.

- Faith India - It provides education and other services to children with Visual Impairment in Ernakulam.

- Blind Relief Association - It provides education to Children with Visual Impairment in Delhi.

- Shishu Raksha - It is the Karnataka State Council for Child Welfare in Bangalore.

- Kerala Federation of the Blind - It provides Braille shorthand and computer training, braille transcription aid, mobility and orientation program for the children with visual impairment.

- Victoria Memorail School - It provides education and it is a residential school for children with Visual Impairment in Mumbai.

- Rakum School for the Blind - It runs a free residential school for the Visual Impaired and provides training in reading and writing through braille, mobility training for the Visually Impaired, counselling and guidance also in Bangalore.

- Royal Common Wealth Society for the Blind - It works for the prevention and cure of blindness and rehabilitation of the blind. It gives financial assistance to organise free eye camps in rural areas. It is located in Mumbai.

- Rotary Club of Chandigarh – It is an organisation which helps children with braille in Chandigarh.

4.4.7 Schools for the Mentally Handicapped

The first school mentally retarded was set up in Mumbai in 1944 – Jai Vakeel School - It provides research, education and vocational training to the children with mental retardation.

- In 1954, All India Institutes of Mental Health was established.

- Kamayani School in 1964 was set up for the education and vocational training of the Mentally retarded individuals.

- Model school for Mentally Deficient – It provides educational, pre-vocational and rehabilitation services to students with Mentally Retardation in New Delhi. It has an attached Hostel also.

- Arushi – It provides education & pre-vocational training to children with Mental Retardation and learning disabilities in Mumbai.

- Karvalamban – It provides education for the Mentally Handicapped in Secunderabad.

- Central Institute for Mentally Retarded - It provides education, rehabilitation services to children with Mental Retardation in Trivandrum.

- Spandeen – It provides education to children with Mental Handicap in Baroda.

- MITHRA – Is an organisation providing rehabilitation to the Mentally Retarded in Bangalore.

- Ashalaya Home for the welfare of the Mentally Retarded - It provides vocational, physical and remedial training for children with Mental Retardation in Bangalore.

- Association for Mentally Retarded – "Pragati" is a Special School providing education to children with Mental Handicap in Bangalore.

- St. Camilus Training Centre for education of the Mentally Retarded – It provides education for the Mentally Retarded in Kerala.

- Manjunath Social Welfare Association – It provides career guidance and education to children with Mental Retardation and it is also residential school located in Belgaum.

- Canossa Special School – Three R's and art, craft, are provided to children with Mental Retardation in Mumbai.

- Dilkush Special School – It provides training in self-care, workshops, clinical services etc. to children with Mental Retardation in Mumbai.

- SPJ Sadhana School – It provides education, vocation, pre-vocational training and it also has sheltered workshop in Mumbai.

- Amar Jyoti – It provides education for the Mentally Retarded in Delhi.

- Ernakulam Women's Association - It provides education and vocational training for the Mentally Retarded and Deaf in Cochin.

- Alphons Social Centre - It is a school for Mentally Retarded providing education to the Mentally Retarded students in Ernakulam.

4.4.8 School for the Orthopaedically Handicapped

The schools for the Orthopaedically Handicapped or were set up first in 1947.

- The society of rehabilitation of crippled children – Mumbai. This maintains a Children's Orthopaedic Hospital and provides services for Cerebral Palsy and Polio Children

- Cheshire homes founded in 1948 by Leonard Cheshire. In India it has 19 homes, Bangalore.

- In 1955 Fellowhip of the physically handicapped was set up in Mumbai. It alleviates the suffering of persons having Orthopaedic Handicaps.

- Spastic society of India started in Delhi in 1978 and later in Mumbai, Bangalore offers Education, Speech therapy, Occupational therapy, Physiotherapy to students. It is now known as National Resource Centre for inclusion.

- Society for the education of the crippled in Mumbai offers education for the Orthopaedically Handicapped.

- Life Help Centre for the Handicapped in Adyar, Madras offers Special Education to Orthopaedically Handicapped and Intellectually Disabled Children.

- Educational Organization of Tenali – provides education to Physically Handicapped Children.

- Punarjanman; A Special School – provides education for the physically challenged children in Coimbatore.

- Amar Seva Sangam – Centre for Physically Handicapped - It provides education and rehabilitation to the physically handicapped in Tirunelveli district.

- The J.S.S. Polytechnic for Physically Handicapped - Offers courses on computer science, engineering, architecture and commercial practice for student who are Physically Handicapped or Deaf.

- Destitute Home for children with Physically Handicapped – provides shelter and education for children with Physical Handicap in Mysore.

- Association of the Physically Handicapped – It provides education for children with physical handicap in Belgaum.

- Dada Amar Rehabilitation Centre for Cerebral Palsy – It provides education and rehabilitation to children with Cerebral Palsy in Bangalore.

- Disha – Education for the Disabled – It provides special education, vocational training and rehabilitation of spastic children.

- Rotary Club of Delhi – It is involved in vocational training projects for physically challenged.

- Dr. Ambedkar Institute for Physically Handicapped – It offers courses on engineering, commercial practice for students with Physical Handicap in Kanpur.

- Jyot Charitable Trust – It provides aids and artificial limbs to physically handicapped children in Chandigarh.

- Sanjeevan – It provides education for the Physically Handicapped and Mentally Handicapped in Patna.

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- UDAAN for the Disabled - It provides Training, Rehabilitation and Early Medical Intervention with integration the children with Cerebral Palsy, Mental Retardation, etc. in Delhi.

4.5 SUMMARY

We can summarise the activities of the National Institutes saying that the thrust areas of the National Institutes are man-power development, development of models of services delivery programs for rehabilitation, reaching services to the unreached through out reach activities and research and development in the area of bio-medical engineering, mental retardation and visual impairment. The schools help in availing of services in the neighbourhood.

4.6 CHECK YOUR PROGRESS

- How did the need for National Institutes arise?
- List the National Institutes and explain the objectives of NIMH and NIVH.
- Are NIRTAR and NIOH related in any way?
- Why is it essential to know the services of these institutes for a special educator?.
- How does the knowledge of special school in the various area benefit you as a special educator?

4.8   POINTS FOR DISCUSSION AND CLARIFICATION

After going through the unit you may like to haved further Clarification and Discussion on some Points.

4.8.1 Points for discussion

4.8.2 Points for clarification

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BLOCK-3: AUTISM SPECTRUM DISORDER: NATURE, NEEDS AND INTERVENTION

UNIT – 1 : DEFINITION, TYPES AND CHARACTERISTICS

STRUCTURE

1   Introduction
2   Objectives.
3   Definitions
4   Summary
5   Revision
6   Assignment/Activity
7   Points For Discussion And Clarification
8   References / Further Readings

1.1 INTRODUCTION

Perhaps no area in the field of Special Education has been more controversial and has polarized practitioners and professionals to more extreme positions than that of assessment. Assessment procedures have permeated every level of education, from the molecular to the molar, from the individual to the entire educational enterprise. Nearly everyone in schools today conducts assessment; speech therapists assess language development and skills, occupational therapists assess perceptual- motor development and skills, administrators assess teachers and instructional programs, teachers assess a multitude of skills, and school psychologists assess nearly everything. The field of assessment is in turmoil, and change is necessary. However, one option that is not available is the stopping of all assessment procedures. School personnel must continue to make educational decisions and document their reasons for those decisions. Good assessment procedures are of utmost importance to do this, it also refers to those assessment procedures that have been derived by scientific research,and have "proven" to be valuable.

It is believed that much of the turmoil regarding the use of tests in schools is a function of considerable confusion regarding "testing" and "assessment". The two terms should not be used synonymously. Testing may be thought of as "exposing a person to a particular set of questions in order to obtain a score." Assessment may include testing but involves far more information than simply a test score or quantitative index. Qualitative information, or data on how the child earns the score, is also considered. Assessment must be viewed more broadly than testing, and is best defined as the process of collecting data for the purpose of making psychoeducational decisions.

There is considerable overlap among the different forms of <u>autism</u>. The wide variation in symptoms among children with <u>autism</u>, however, has led to the concept of <u>autism spectrum disorder</u>, or <u>ASD</u>.

ASDs affect one out of every 68 children in the U.S. They occur more often among boys than girls. While <u>autism</u> appears to be on the rise, it's unclear whether the growing number of diagnoses shows a real increase or comes from improved detection.

Early diagnosis is important. That's because early treatment can help a child with autism make significant gains in language and social skills.

Autism spectrum disorders affect three different areas of a child's life:

- Social interaction

- Communication -- both verbal and nonverbal

- Behaviors and interests

Each child with an ASD will have his or her own pattern of autism.

Sometimes, a child's development is delayed from birth. Some children seem to develop normally before they suddenly lose social or language skills. Others show normal development until they have enough language to demonstrate unusual thoughts and preoccupations.

In some children, a loss of language is the major impairment. In others, unusual behaviors (like spending hours lining up toys) seem to to be the dominant factors.

Parents are usually the first to notice something is wrong. But a diagnosis of autism is often delayed. Parents or a physician may downplay early signs of autism, suggesting the symptoms are "just a phase" or a sign of a minor delay in development. Children with a possible autism spectrum disorder, though, should be evaluated by a professional team with experience in diagnosing autism.

Until recently, the types of ASD have been determined by guidelines in the diagnostic manual (DSM - IV) of the American Psychiatric Association. According to the CDC, the three main types of ASD are:

- Asperger's syndrome

- Pervasive developmental disorder, not otherwise specified (PDD-NOS)

- Autistic disorder

The DSM -IV also included two rare but severe autistic-like conditions -- Rett syndrome and childhood disintegrative disorder.

The new diagnostic manual has made some major changes in this list of disorders. It's unclear, though, how these changes will affect the way health professionals define exactly what is an autistic spectrum disorder.

The Nature of Autism and Autistic Spectrum Disorder

These notes were prepared to provide a brief introduction to the characteristics of Autism and ASD and their management for inclusion in the LEA Handbook on Special Educational Needs.

Nature

The current definition of Autism refers to a pervasive disorder involving severe impairment in the areas of social interaction and communication, stereotyped behaviours, and a preference for sameness.

Autism was first described in the 1940s and three particular disabilities have been defined as core and characteristic (the "triad") …..

- Rigidity of thought and behaviour, together with limited imagination and imaginative play.

- Limited verbal and nonverbal communication with a lack of true two-way interchange, and a weakness in recognising the feelings or perspectives of others.

- Fragile or absent social relationships with an appearance of aloofness or indifference.

The concept of "spectrum" indicates the wide range of levels of difficulty or of permutations of symptoms that may apply to all children diagnosed with autism, but these core characteristics will be observable to some degree in all cases. At the level of marked or severe difficulties, the children are likely to need specialist educational provision, but children towards the higher end of the spectrum will probably benefit from mainstream provision.

Asperger Syndrome, also first described in the 1940s, may be differentiable from high functioning autism in some specific ways, but is usually perceived as a less severe form of the condition whose characteristic signs include marked and sustained

impairment in social interaction or play, restricted and repetitive behaviours and activities, particular interests to the exclusion of all others, and a strong dislike of changes to routine. Motor delays or clumsiness are commonly associated with this syndrome.

However, children with Asperger Syndrome have adequate vocabulary and expressive language, may have cognitive scores in the average range or above, and do not commonly experience additional learning difficulties. Consequently, diagnosis may be delayed until the difficulties with social interaction become evident, and the children are at increased risk for emotional or stress-related disorders as a result of the "invisibility" of the condition and the inappropriate expectations that may be applied.

Approximately 4 times more boys than girls are affected by autistic spectrum disorders.

Key Issues

Many of the (social) anomalies characteristic of autism may reflect a deficit in Theory of Mind in that the individual cannot readily appreciate the feelings, beliefs, or knowledge held by other people (and perhaps cannot fully recognise or interpret his or her own thought processes). Therefore, there will be stilted communication, a lack of self consciousness, and weakness in understanding or entering social situations.

Stimulus Over-Selectivity refers to the trend to respond only to part of a stimulus rather than the whole object or to the whole social setting. This may explain why some individuals with ASD are not confused by optical illusions or why they may be unusually proficient at tasks like copying patterns since they are able to examine the stimulus in small bits at a time.

Along the same lines, there may be a limit in Central Coherence which implies an inability to use context to make full sense of what is presented (eg words with similar appearance but different meanings and pronunciations like " There is a tear in my shirt /There is a tear in my eye " may present problems because of the lack of rapid scanning of the whole phrase or sentence to identify how to deal with the given word).

Executive Functioning, ie the ability to plan ahead, or to bring together bits of information from different sources, and to generalise or learn for experience, may be limited.

ASD is noted for idiosyncrasies in Attention. In very young children , the lack of capacity with regard to gaze monitoring and, therefore, to sharing attention may explain some of the social interactional problems. The absence of shared attention by around 18 months of age is a diagnostic pointer. Further, the individual with ASD may be able to focus well upon certain activities, especially those that he or she has chosen, but will probably have problems in shifting attention from one task to the next,

especially if the type of attention required is also changing. For example, to move from some individually-pursued and quiet task to a whole class activity involving verbal interchange will be challenging.

Literalness or Concreteness in receptive language implies that nothing can be taken for granted in the individual's understanding of instructions that are not specific, and humour or figurative speech will be very confusing. A request such as " Would you like to finish that writing now ? " may only evoke the answer "No" …. (and this might be wrongly interpreted by the teacher as provocative when this was not intended).

Further, this style might underlie the weaknesses in imaginative play so that, eg, a cardboard tube is a cardboard tube and not a telescope ; and there is a common need to see some direct purpose in activities so that certain games, such as football involving rushing to one end of the playground only to rush back again, would be seen as pointless by many ASD children.

Intervention and Management

A common theme still concerns the need for early diagnosis and for equally early intervention, and a range of approaches is available to use with young children with ASD. Significant components in such programmes include the understanding of, and involvement of the parents or carers in, the goals and strategies, consistency of application, and the capacity to generalise the skills learnt to different settings and occasions.

Early provision and structured support may not lead to a cure for autism, but they can enhance progress, reduce pressure and stress upon the child, and limit the incidence of maladaptive behaviours.

Mainstream inclusion is a viable prospect for those children with higher functioning autism or Asperger Syndrome, but flexibility of approaches and raised awareness of autistic "style" among staff (and, perhaps, peers as well) is required.

The major issue is concerned with reducing any stress in the children which might otherwise stem from some uncertainty over what is expected or from communication breakdown, and which might be reflected in what appears to be non-compliant or challenging behaviour.

The programme for any given child will be based upon individual observations and assessments, but basic strategies could well include some or many of the following :

- Providing a clear structure and set daily routines

- Visual timetables and picture boards to provide checks on tasks to be covered

- Providing warnings of impending changes of activity or interruption to routine

- Use of clear and unambiguous language

- Addressing requests or directions directly to the child, and not assuming that s(he) will adhere to group directions or that any incidental learning will occur

- Teaching what "finished" means

- Repeating instructions and checking understanding

- Using a range of means of presenting ideas .... visual, peer-modelling, etc.

- Specific teaching and practising of social skills like turn-taking, and of theory of mind skills

- Minimising of distractors

- Exploring the use of computer-based learning and word-processing

- Not insisting on those activities which the child particularly dislikes, such as games

The different types of autism - also known as autism spectrum conditions, autism spectrum disorders, ASDs or pervasive developmental disorders.

There are four main sub-types of autism recognised within the Diagnostic and Statistical Manual of Mental Disorders, fourth edition, published by the American Psychiatric Association.

- <u>Autistic Disorder</u>, also known as autism, childhood autism, early infantile autism, Kanner's syndrome or infantile psychosis.

- <u>Asperger Syndrome</u>, also known as Asperger's disorder or simply Asperger's.

- <u>Childhood Disintegrative Disorder</u>, also known as CDD, dementia infantalis, disintegrative psychosis or Heller's syndrome.

- <u>Pervasive Developmental Disorder (Not Otherwise Specified)</u>, also known as PDD (NOS) or atypical autism.

Rett syndrome is no longer considered to be a sub-type of autism, although individuals with Rett syndrome may display autistic-like symptoms.

However the fifth edition of Diagnostic and Statistical Manual of Mental Disorders, DSM-5, published in May 2013 eliminated the four sub-types listed above by dissolving them into one diagnosis called <u>Autism Spectrum Disorder</u>. According to the APA, this represents an effort to more accurately diagnose all individuals showing the signs of autism.

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At present, the term 'autism' is sometimes used interchangeably with the term 'autism spectrum disorders' to mean any or all of the different forms of ASD. It is also sometimes used interchangeably with the term 'autistic disorder'.

1.2 OBJECTIVES

After reading the course unit, you as a students ,should realise the following objectives:

1) understand the meaning and types of assessment.

2) understand the process of assessment.

3) identify behavioural characteristic of the disabled.

4) understand different types of assessment tools .

5) use assessment for evaluating educational programes.

1.3 DEFINITION

1.3.1 What is Assessment?

Assessment: a process of collecting data to make decisions

The assessment can be described as a process of collecting data to make decisions about student. Assessment data are obtained, in part, from norm –referenced and criterion referenced tests, observations, interviews, and searches of school records, medical evaluations, and social histories Assessment includes the collection of data regarding both the historical and current functioning of the student. It is an integral part of a dynamic, ongoing process.

i) Evaluation of individual progress
ii) Program evaluation:
iii) Screening
iv) Eligibility,
v) Intervention

Salvia and ysseldyke (1991) identified five kinds of decisions regarding students – evaluation of the individual, program evaluation, screening, placement, and intervention planning made on the basis of assessment data.

i)   E

valuation of individual progress

School personnel regularly gather data to evaluate the extent to which individual students and groups of students are making progress in the instructional programme to which they are assigned. These data also give information about the schools effectiveness.

ii) Program evaluation

Schools use tests to evaluate the effectiveness of instructional programs. At a curricular level, lests are often used to evaluate the effectiveness of specific instructional interventions. School Personnel give test before and after instituting new teaching methods materials, and they compare the gain in achievement with the gain that followed some other intervention. Using data obtained from such tests, the administrators try to sort out " good" from "bad" program.

iii) Screening and/or selection

Tests are administered regularly to students to assist in admission decision. Assessment data are used to identify students who do not profit from educational programs. Students are assessed on a regular basis to identify those who need remediation or should be referred for additional assessment because they may be eligible for special education intervention. As for example a routine vision and hearing screenings is used to discover the students with possible vision and hearing difficulties, the results of screening tests that assess learning aptitude, academic achievement, or perceptual -motor functioning, are used to discover students with potential difficulties in these areas.

iv) Eligibility, placement, and / or classification

Decisions as to where the students are eligible for special or remedial Services can be classified as handicapped, and should be placed in special education programs can have a profoundest effect. It may be advantageous to distinguish among these three decisions, although in practice it is nearly impossible to do so.

v) Intervention planning

Takes into account the many contextual factors (assessment of school policies and practices, home and family factors, in-class instructional factors) that interact to influence instructional outcomes for individual students. (Norby, Thurlow, Christenson, and ysseldyke,1990, ysseldyke, Thurlow, & christenson1987).

Early assessment practices occurred at the level of disposition. Such practices received widespread criticism, which resulted in shifts to procedures such as prereferral intervention, curriculum based measurement, functional assessment of the academic environment, direct assessment of academic performance and assessment of instruction environment.

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1.3.2 What are the Types of assessment

Types of assessment

   a)Norm-referenced assessment

   b)Criterion referenced assessment ·

   c)Curriculum based assessment

   d)Curriculum based measurement

   e)Performance based assessment

   1)Formal assessment

   2)Informal assessment

a)Norm-referenced assessment

In a norm-referenced assessment the student's performance is evaluated in reference to the performance of others who are unlike him or her. Standardized measures are used, and the student's performance is compared to the performance of those in the norm group. Norm referenced assessment is necessary to know where the students are in reference to their peers and that this knowledge assists teachers in picking the level at which to instruct students in groupings students for instructional purposes. However critics argue that knowledge about relative standing from norm – referenced assessment does not help a teacher decide how to teach. They contend that instructional decisions are best made by using curriculum based approaches or by teaching students and monitoring progress toward objectives.

Much abuse can follow from the use of norm –referenced assessment data to make decisions regarding students. Abuse results from the use of tests for purposes other than those for which they are designed, from comparison of students who differ systematically in several characteristics, and from the use of technically inadequate tests to collect data on students.

b) Criterion referenced assessment

Criterion referenced test measures students mastery of specific skills. These tests enables the teacher to determine the extent to which individuals or groups have mastered specific content. Specifying the objectives or criteria to be measured, usually in basic skill areas and then by writing items to assess mastery of those objectives of criteria develop the tests. The two critical issues in criterion referenced assessment are the establishment of the criteria and the setting of the

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level of mastery When the extent to which students have mastered curriculum content is measured, the precise contents to be mastered has to be specified. Critics argue that in criterion referenced assessment the level of Mastery to be demanded also has to be specified. This is usually a function of how important the content is. School personnel usually contend that very important material ought to be learned to high degree of mastery, where as less important material requires only limited degrees of mastery. Debate abounds to the relative importance of various contents.

c) Curriculum based assessment

Curriculum based assessment, which is sometimes called task analytic mastery measurement (Fuchs and Deno, 1991) is, "a procedure for determining the instructional needs of a students based on the student's ongoing performance within existing course content " (.Gickling and Havertape. 1981).This assessment includes direct observation and analysis of the learning environment, analysis of the processes student use to approach tasks, examination of students' products, and Control and arrangement of tasks for students. School personnel break complex tasks into their component parts and analyze the extent to which the student can master each of the components. They teach those components that have not been mastered and integrate the components to teach the complex skill. Assessment consist of setting terminal objectives and enabling objectives, writing items designed to measure mastery of enabling objectives, administering minitests to students, and charting students performance on the tests. Those opposed to the use of these measures argue that the approach is labour intensive and fractionated and that performance on the smallest test does not generalize to performance in the broader domain of behavior that can be assessed.

d)Curriculum based measurement

Curriculum based measurement is a specific form of curriculum- based assessment, which is characterized by standardized direct measures of the student's skills in the content of the curriculum. The measures meet the following criteria: (1). " Tied to a student's curricula, (2) of short duration to facilitate frequent administration by teachers/educators, (3) capable of having many multiple forms, (4) inexpensive to produce in terms of time in production and in expense, and (5). Sensitive to the improvement of students' achievement over time", (Marston, 1989).

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This measure gives valid indications of the student's performance in the curriculum of interest, focus on the broader Goals of the curriculum, and enable teachers to monitor students skill development across an entire school year without shifts in measurement devices and procedures. Critics of this technique maintain that their curriculum specificity limits their use to the specific curriculum being measured.

e)Performance based assessment

Assessors are now attempting to move away from assessment that focuses on a student's performance and multiple-choice tests and memorization. They are looking at problem -solving ability and are gathering data on student's performance over longer periods of time. This form of assessment requires students to frame problems, collect data, analyze and report the results. This kind of assessment is often called performance-based assessment, though the terms "alternatives assessment "and " authentic assessment" are also used. This technique of assessment images the students ability to pick up critically, use their knowledge, and use creative problem solving to solution of real-life problems.

Resnick (1990) argued that performance assessment measures the "thinking curriculum" and not the " remembering curriculum" and that such measures are more closely aligned to the context of instruction. Performance assessments let students know what are the goals of schooling. Shavelson (1990) argued that performance assessment is teaching as well as assessment, and Barron (1990) contended that performance assessment, because it is so closely tied to instruction, has more ecological for phase validity.

However questions are being raised regarding the technical adequacy of the measures (Porter, 1990, Cross, 1990), the assumption that the teacher has more expertise than can be demonstrated (Linn, 1990; Reddaway, 1990), and the extensive time and expense demands placed on the teacher. Students often select the task they use to demonstrate their expertise, the equivalence of measurement necessary for comparative judgements are difficult. It is argued that the use of such measures requires considerable input from teachers, administrators, and parents all of whom are busy and it adds to the teacher's burdens. The teacher should be clear as what ought to be assessed: what is taught. And what should be taught. There is a wide range of testing procedures that one can choose from when testing the individual with disabilities.

Generally assessment techniques fall into two groups: formal and informal:

1.3.3 Formal assessment

Formal assessment involves the use of standardized tests, which demand a high degree of uniformity in administration and interpretation. They allow comparison of students of the same age or grade, and can be used individually or in-groups. Standardized tests Select items of high technical quality provide explicit directions for administration and scoring of the tests, and outline technical information related instrument's advocacy. One of the most important advantages of a standardized test is that it allows one to compare the ability of an individual (or group), with a normative sample. When selecting a Standardized test, certain precautions must be kept in mind. The test manual must be carefully reviewed to ensure the test is used for the purpose it was intended .Teachers must know " why ' they are testing, which test to select, and how the results will be used. The teachers must be sensitive to technical factors like reliability and validity. A test is said to be reliable if the scores obtained are consistent over repeated administrations. It is valid if it truly measures what it purports to measure. Interpretation of scores too, is a fairly skilled process. Difficulty with interpreting scores arises from the fact that tests yield many different kinds of scores, which can be confusing: raw scores, grade equivalent scores, age equivalent, percentiles, and standard scores. The scores should never be over generalized, that is, applied to something for which the test was never intended. Formal Tests are generally of three kinds: (1) General intelligence and aptitude test (2) General achievement tests; and (3) Personality tests.

1.3.4 Informal assessment

Informal methods of testing are non-standardized procedures used by teachers and other professionals, to collect information about the learner. The advantage of informal Testing procedures is that they are relevant to that kind of practical instruction that occurs in the classroom. However in order to be effective, these tests too must be systematic, structured and designed along scientific principles. The most frequently used informal procedures are observations, interviews, questionnaires, and tests.

1.4   IDENTIFICATION

1.4.1 Visual Impairment: (V.I)

Visually handicap is defined in terms of visual acuity, field of vision, and visual efficiency. Visual ability is the ability of the eye to see distant objects clearly using snellen chart. Children who see the capital letter "E" from a distance of 20 feet instead of 200 feet are considered to be legally blind. Children who have low vision or

residual vision, are sighted and their visual acuity does not exceed 20/70.These children have orientation and mobility problem. Low vision is defined in terms of clarity whereas partial sightedness is defined in terms of distance from snellen chart

Identification

Given below are a few indicators which may enable the parent and teachers to identify children with visual Impairment.

- Rubs eyes excessively
- Watery eyes
- Eyelids are often red
- Holds objects and book too close to the objects
- Head very close to the book or reading material
- Squints
- Blinks more frequently
- Take help from peers to copy from the blackboard
- Regular headaches
- Bumps into objects or people
- Poor eye-hand coordination
- Uncomfortably moves head forward and backward while looking at distant objects.
- Looses his place while reading.

> Identification: excessive rubbing of the eyes, red eyelids, watery eyes, tilts head forward, holds objects and books close to eyes, requires help to copy notes from the blackboard,
> Blinks, squints, bumps into people and objects, poor eye-coordination, keeps book close to the eyes.

Assessment

Assessment is a major challenge which the teachers working with the visually impaired Children have to face. Developmental assessment uses chronological age as a basis of comparison. It is not possible to evaluate visually impaired and sighted children on a set of common measures, even if they have been adapted for that population. Furthermore Ability measured may serve an entirely different ecological function for the visually impaired than the sighted. Individual assessment of all the abilities is essential because the visually impaired children are heterogeneous i.e., residual vision, visual history, pre and post birth blindness, visual, cognitive, emotional, parents' reaction to impairment, etiological differences even under one

homogeneous CA. The most important initial screening device for detecting eye problem is one that would measure visual acuity. Tests to measure intellectual abilities are Perkins – Binet-Carl Davis-revision.Wechslers intelligence scale for children. Vithobha Pannikar Performance Test of intelligence for the Blind.The Blind Learning Aptitude test (BLAT) (CA6-20).

Behavior and social Development Characteristics can be assessed by using some of the following tests: Bayley Scale of Infant Development, Denver Development Screening Test, Maxfield –Buch Holz social maturity scale for blind pre school children.

Vision characteristics can be considered on the basis of evaluation of functional vision and visual efficiency scale.

If appropriate modifications and specialized instructional interventions are unavailable individuals with visual impairment may experience difficulty in: Cognition, Academics,

Physical, Behavior, Communication.

Other areas of functioning also need to be assessed in order to determine placement and develop the IEP. Areas to be assessed should include:

Current Eye Medical Information.

Academic Skills-Learning Style.

Compensatory Skills.

Academic compensatory skills:those special skills a visually handicapped student needs to cope with the school academic curriculum such as braille, use of maths, tactile devices, sensing devices, light probes, etc.

Personal compensatory skills: those areas of skills a visually handicapped individual needs to cope with the environment in general such as grooming, mobility, recreation, environmental awareness etc.

Functional Level:

Communication Skills:

Orientation and Mobility:

Social Adjustment Skills;

Sensory Skills;

Visual Efficiency:

Physical Education and Leisure Activities.

Career, Vocational or pre-vocational skills;

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A comprehensive evaluation of the student's ability can lead to an appropriate IEP. Observation, interviews, and curriculum-based assessment may add to the formal assessment.

1.4.2 Mental Retardation (M.R)

The essential feature of mental retardation is significantly subaverage general intellectual functioning (criterion A) that is accompanied by significant limitations in adaptive functioning in atleast two of the following skill areas: communication, self-care, home living, social/interpersonal skills, use of community resources, self direction, functional academic skills, work, leisure, health, and safety (criterion B). The onset must occur before 18 years of age (criterion C).Mental retardation has many different etiologies and may be seen as a final common pathway of various pathological Processes that affect the functioning of the central nervous system.

> Mental retardation is significantly subaverage general intellectual functioning (criterionA) that is accompanied by significant limitations in adaptive functioning in at least two of the skill areas.

Identification

Certain behavioral signs give an indication of the presence of mental retardation:

- General academic retardation characterized by slow rate of learning,
  Poor problem solving skills, as slow reaction to environmental demands.
- Difficulty in developing abstract concepts, absence of clarity.
- Inability to arrive at and see common element, among different objects Or events.
- Inability to delayed gratification and satisfaction by immediate reward.
- Have difficulty in concentrating on the learning task.
- Have short attention span.
- Have difficulty in focusing their attention on the important aspect of the task and ignoring the irrelevant ones.
- Have deficits in short term as well as long term memory as they do not organize and rehearse learnt information.
- Require much more repetition and practice to learn a particular task/content.
- Display limited and concrete vocabulary. They also have difficulty in Understanding abstract concepts. For e.g.: - they may have difficulty in understanding words like freedom, democracy etc.
- The limited intellectual capacity limits their language and academic skill

- Unlike students with learning disabilities, students with mental retardation present a relatively even profile of abilities and performance i.e. there is not much of difference between the student's innate capacities and performances.
- The higher levels of cognitive processing required for critical Comprehension, writing and complex problem solving may be difficult.
- They tend to overlook subtle meanings and miss opportunities for Incidental learning.
- Eye movements jumpy and not synchronized
- Experiences difficulty moving around the classroom.
- Difficulty in reading small print.
- Difficulty in identifying small details in pictures or illustrations. Frequently complains of dizziness after reading a passage or completing an assignment.
- Uses one eye more than the other for reading or completing other assignments.

Identification: slow rate of learning, poor problem solving skills, slow reaction time, poor attention span, short term memory deficit, repetitive learner, poor language and academic skills poor comprehension.

Assessment

Assessment of the mentally retarded includes basically intelligence and adaptive behavior along with developmental material provided by parents, teachers, social workers and other professionals. General intellectual functioning is defined by the intelligence quotient. The widely used intelligence tests are Stanford Binet, and the Weschler Intelligence Scale for children. (R or III). Kaufman Assessment Battery for Children. Significantly intellectual functioning is defined as an IQ of about 70 or below (approximately two standard deviations below the mean).

It should be noted that there is a measurement error of approximately five points in assessing IQ. Although this may vary from instrument to instrument. It is possible to diagnose mental retardation in individuals with IQs between 70 and 75 who exhibit significant deficits in adaptive behavior. Conversely, mental retardation would not be diagnosed in an individual with an IQ lower than 70 if there are no significant deficits or impairments in adaptive functioning. The choice of testing instruments and interpretation of results should take into account factors that may limit test performance

(For example individual's sociocultural background, mother tongue, associated communicative, motor, and sensory handicaps). When there is significant scatter in the subtest scores, the profile of strengths and weaknesses, rather than the mathematically derived full scale IQ will more accurately reflect the person's learning abilities. When

there is a marked discrepancy across verbal and performance scores, averaging to obtain a full scale IQ scores can be misleading.

Impairments in adaptive functioning, rather than a low IQ, are usually the presenting symptoms in individuals with mental retardation. Adaptive functioning refers to how effectively individuals cope with common life demands and how well they meet the standards of personal independence expected of someone in their particular age group, sociocultural background, and community setting. Adaptive functioning may be influenced by various factors, including education, motivation, personality characteristics, social and vocational opportunities, and the mental disorders and general medical conditions that may coexist with mental retardation.

It is useful to gather evidence for deficits in adaptive functioning from one or more reliable independent sources (for example teacher evaluation and educational, developmental, and medical history.) Adaptive behavior is assessed using adaptive behavior scales. These scales generally provide a clinical cutoff score that is composite of performance in a number of adaptive skill domains.

Assessment is made on the basis of maturational and development skills in the area of communication motor ability and self-help in early childhood. AAMD adaptive behavior scale and the Vineland Social Maturity scale are the tests to measure adaptive behavior. Other well-known scales are behavioral assessment scales for Indian Children with mental retardation, Problem behavior checklist, Maladaptive behavior checklist etc.

- I .Q scores 70-75 and below on and individually administered I.Q test.

- Deficits in adaptive behavior i.e. deficits in the person's capacity to be self-reliant, socially responsible, carrying out of daily living skills – corresponding to their age.

- The presence of these deficits during the developmental period i.e. ages 0-18 years of age.

Adaptive skill areas:

American Association of Mental Retardation considers ten adaptive skill areas. Limitations in two or more of these areas are required for a diagnosis of mental retardation. Clinical judgement, environmental expectations, and potential support systems are considered when adaptive behavior is evaluated.

Communication : communication includes the ability to comprehend and express information through spoken word, written words, graphic symbols, sign language, and manually coded in English or non-symbolic behaviors such as facial expressions, body movements, and gestures.

Self Care : self-care involves skills such as eating, dressing, grooming, toileting, and personal hygiene.

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Home living : home living refers to the daily functioning related to area such as housekeeping, clothing care, property maintenance, food preparation, planning and or shopping, and home safety.

Social skills : social skills include appropriate (for example, making friends, showing appreciation, smiling) and in appropriate (for example, tantrums, jealousy, sexual behavior) social behaviors.

Community use: community use refers to appropriate use of resources in the community, including transportation, shopping, obtaining Services, worship, and use the public facilities.

Self direction: self direction refers to making choices related to learning and following schedule, initiating appropriate activities consistent, personal interests, completing tasks, seeking assistance when needed, and resolving problems productively.

Health and Safety :

Health and safety refers to maintaining one's well-being, including having appropriate diet, identifying, treating, and preventing illness, knowing basics first step, and following rules and laws.

Functional Academics : functional academics include cognitive abilities and skills related to learning in school, (For example, reading, writing, maths, science, geography and social studies).

Leisure : refers to recreational interests and skills related to them, such as choosing and initiating activities, taking turns, and using home and community activities alone and with others.

Work : work refers to holding job (part or full-time).Or participating in voluntary activities.

Since expectations for different age groups vary, the criterion used to identify a deficit in adaptive behavior at different ages also varies. Grossman (1983) linked the criterion to development stages: During infancy and early childhood, deficits appear in

- Development of sensorimotor skills.
- Communication skills
- Self help skills
- Socialization

    During childhood and early adolescence, deficits appear in all the areas mentioned above and /or:

    - Application of basic academic skills in daily life activities.

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- Application of appropriate reasoning and judgment in mastery of the environment.

- Applications of social skills to participation in group activities and interpersonal relationships.

During late adolescence and adult life, deficits appear in all the area just listed above and /or:

- Vocational and social responsibilities and performance.

The adaptive behavior criterion is critical for identifying student with mental retardation. The adaptive behavior criterion is also central to planning intervention for students with mental retardation. Instruction is directed at areas crucial to successful adaptation in schools, homes and communities, and the not just typical academic areas. (Eg.,reading, writing, arithmetic)

> Assessment:
> a) Intellectual functioning.
> b) Adaptive skill areas.

1.4.3   Hearing Impairment (H.I)

Hearing impairment appears to be a relatively homogeneous disability characterized by increasing inability to detect or process auditory stimuli as the hearing loss increases in severity. The implications of hearing impairment for life adjustment and for social and cognitive development are influenced by numerous factors such as parental acceptance of the handicap, family climate and the status of the deaf child in the family, age at the onset of the handicap, early educational opportunities, educational placement and the prevailing educational philosophies of any formal educational programs intended, social contact with hearing and deaf individuals, the linguistic environments in which the deaf child functions and the opportunities they offer to develop oral and manual communication skills, association or identification with the adult community, and the presence or absence of other handicapping conditions.

> **Hearing impairment is characterized by increasing inability to detect or process auditory stimuli as the hearing loss increases in severity.**

Identification

- The innate intellectual capacity of the deaf child is the same as that of the hearing child, but due to lack of auditory input they do not develop the linguistic skills required for learning and communicating.
- They have difficulties in the comprehension and use of language.
- Academic achievement with adaptations and modifications in the curriculum usually equals that of the hearing population.
- Exhibit specific problems in speaking, reading and/or spelling.
- Have difficulty in interpreting information.
- Limited language skills may interfere with reading skills and the ability to manipulate concepts and ideas.
- Children with normal hearing can learn incidentally, expand their language and reinforce skills and concepts from what they hear. Children with hearing impairment do not get such opportunities.
- Many hesitate to interact verbally and thus limit improvement and demonstration of achievement.
- Master language skills slowly.

Identification: lack of linguistic skills , difficulty in comprehension &language, specific problem in reading & speaking ,difficulty in interpreting information, innate intellectual capacity normal .

Assessment

- An audiometric assessment is done by an audiologist to determine the extent of hearing loss.
- I.Q assessment may be done by the psychologist to determine the intellectual capacity of the child.
- Educational areas such as reading, writing, math may be assessed by the special educator to determine the child's level.

Types of Assessment

Audiological :

Speech

Language

Sign Communication

Cognitive

Developmental

Academic

Vocational

Behavioral Testing

Language assessment

Languages assessment is necessary in young children who show signs of delayed speech, which could be due to hereditary, and environmental factors. It is done to establish language problems relating to phonology, grammar, and semantics. This may be observed by oral testing. Dictation may be used as a method of testing, listening comprehension, receptive expression. Tests of pronunciation, articulation, vocabulary, testing grammatical structure, transformation of one pattern to another, complete the sentence by rearrangement of words. By using all these techniques the teacher can prepare a profile of language ability which eventually will help to plan for language intervention.

The intellectual functioning of the hearing impaired may be evaluated by two streams of psychological activity (a) development of intelligence test to measure complex problem solving ability can evaluate the intellectual functioning of the deaf person. (b) Development of cognitive functioning in the area of measures, perception, learning.

The child with hearing impairment may also have difficulty in communication. This provides a crude estimate of intellectual ability (IQ being low) and therefore should be interpreted with caution. The information is not worthless if it is used in conjunction with a broad spectrum of adaptive behavior that is indicative of intellectual functioning. Such areas include social competence, self-competence, physical competence, receptive communicative competence, expressive communicatively competence; adjustment competence tests should be devised to measure all these.

Behavioral testing (such as visual reinforcement audiometry or conditioned orienting response), usually at 6 months of age or later, may be used to detect hearing impairment, reliably in almost all infants prior to the acquisition of speech and language.

This method would minimize the problems of over-referral and "labeling" that is inherent in the newborn screening methods. Identified infants could begin timely rehabilitation or intervention, and later onset hearing impairments could be detected.

Several disadvantages of this strategy exist:

(1) Traditional behavioral audiometry in a 6-month-old infant requires skilled personnel and is time- consuming;

(2) Unlike newborn testing, the evaluation of older infants requires reasonable access to a testing facility;

(3) Testing is most difficult in developmentally delayed infants who are at highest risk; and

(4) Some hearing impairment would not be treated until after 1 year of life because of a lack of lead-time to implement intervention. There are new versions of behavioral audiometry that may eliminate some or all of these objections, but these new techniques remain to be validated in large samples. These new behavioral techniques may provide appropriate methods for use in organized hearing screening programs beyond the neonatal period

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Types of assessment: Audiometric , speech, communication,
Cogniti , **developmental, academic, vocation,**
and behavior.

Testing techniques

Early diagnosis, intervention with proper identification is essential to help the hearing impaired is done at different levels. One has to look at:

a) **High risk register:** This records the history of childhood hearing impairment: infection from rubella, defect of ear, nose, throat, cleft lip or palate, less than 1500 grms of birth weight.

b) **Screening procedures:** Sounds are produced at various frequencies when the child is asleep and the capacity of the child is observed with regard to responding to the sound.

c) **Cribiogram technique:** In this technique sound boxes are kept in the crib and a recording device is attached to the bed on which the baby Sleep. When sound at 92 dB. is produced at certain intervals the reaction of the baby is recorded automatically.

EEG

EEG is used to screen the child for auditory response. Audiometric tests and Observation of infants behavioral response to various sounds during first six months, followed by audiometric test are being used widely.

After an earlier identification, early interaction and preparation using hearing aids, early stimulation, development of sensory motor skills, auditory training to monitor speech, play and constructive activities to develop concepts and abstractions are

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undertaken. The hearing aid should be carefully selected to suit to the child's needs. Basic activities are also required to be started for the development of auditory verbal Communication. The child with hearing loss needs to be accepted, in the family first and parents are to be trained in the use of hearing aid and early stimulation techniques.

Audiometer

Audiometer is an electronic device producing pure tones. It measures the hearing threshold level (HTL), Hearing Level (HL) and sound pressure level (SPL). An audiogram is prepared by testing the child who indicates the degree of hearing loss.

On the basis of all these i.e., degree of affection, site of lesion, on-set and duration of loss, hearing impairment is classified as mild, moderate, severe and profound. It can also be categorized as conductive loss, mixed loss, sensory- neural loss and non-organic loss, congenital loss, and prelingual loss.

The commonly used **psychological tests** to assess competence of the hearing impaired child are as follows:

Seguin form board,

WISC (R orIII)

Vineland social maturity scale.

Bayley scale of infant development.

Bender visual motor gestalt test.

Differential apptitude test.

Personality test.

Behavior checklist.

Classification of hearing impairment

Depending on the extent of hearing loss the hearing impaired can be classified as follows.

Mild H.I: -   26-54 db.

Moderate H.I: - 55-69 db.

Severe H.I: -   70-89 db.

Profound H.I: - 90 db and above.

(0 db signifies the point at which people with normal hearing can designate the faintest sound. Each succeeding number of decibel away from 0 indicates a degree of hearing loss.)

Children with mild and moderate hearing loss can be included in the regular classroom with special help, as most of them are able to utilize their residual hearing with the help of a hearing aid.

> Classification:
> Mild H.I: -   26-54 db.
> Moderate H.I: - 55-69 db.
> Severe H.I: -   70-89 db.
> Profound H.I: - 90 db and above.

Types of hearing loss:

These are usually divided into conductive and sensori-neural impairments:

(1) Conductive Loss

In this case there is a malfunction the outer or middle ear such that the transmission of sound is impaired. It generally results in a slight or moderate hearing loss, although some severe losses are also found.

(2) Sensori- neural loss

Damage can also be caused to the nerve of hearing, which extends to the brain center from the inner ear. This type of hearing loss cannot be operated upon and so must be considered permanent.

> Type of hearing loss:
>
> (1)Conductive Loss: malfunction the outer or middle ear- transmission of sound is impaired
>
> (2)Sensori- neural loss: Damage can also be caused to the nerve of hearing

1.4.4 Locomotor Impairment

Orthopedic impairments are the most common physical disabilities. They are conditions that generally involve the muscular , skeletal, or central nervous systems and affect movements and mobility. The term includes impairments caused by congenital anomalies ,(such as clubfoot) impairments caused by disease , (such as poliomyelitis) and impairments from other causes (such as neurological problems – cerebral palsy).

Orthopedic impairments limit muscular movement and mobility and also differ in severity. Students with mild impairment can function well in general education

classroom with little or no help. Those with severe disabilities may need special furniture or devices, or the help of trained personnel.

> Conditions involve muscular , skeletal, or
> Central nervous systems and affect mobility
> and movement.

Identification

Students in this group

- Usually fall in the normal intellectual range i.e I.Q 90-110, though most of them are on the lower end of this range.
- Due to paralysis they may have language and/or fluency disorders.
- Their mobility may be severely affected and they require adaptive devices such as wheel-chairs, braces, crutches etc to move
- Their academic achievement usually equals to that of the non-disabled peers.
- Their co-ordination of activities may be affected like writing, eating handling objects in the environment etc. Their movements may be jerky, tense etc.
- May be often absent from school due to medical/health problems, or surgeries.
- Physical/ health limitations may limit the range of experiences available to them particularly on the playground, picnics, visits etc.
- Frequent pain in joints.
- Poor motor control

> Poor motor control, joint pain, limits range of experience,
> Absenteeism, jerky movements, affects writing, eating and handling objects affects academic achievement, restricts movements etc.

Assessment

- Assessment by a physiotherapist and/or occupational therapist to determing the level and the nature of handicap. For eg: - cerebral palsy, spasticity, upper limb, lower limb, both the limbs, right/left side or both etc.
- Assessment by the educational psychologist for the intellectual functioning.
- Assessment by the special educator for the educational areas like reading writing, math etc.

- Most of the students with a physical handicap can be easily included in the regular classroom as they do not have any learning problems.

Types

Some of the most common known impairments are:

Poliomyelitis is an acute communicable disease caused by the polio virus. The disease can be very mild, showing no apparent symptoms, to severe, with paralysis, muscular atrophy, and even fatal paralysis.

Muscular dystrophy is actually a group of birth disorders in which the skeletal muscles progressively atrophy; there are no neurological or sensory defects.Muscular dystrophy has four main forms:

Pseudohypertrophic type : usually diagnosed when the child begins to walk.The disorder is progressive.

Facioscapulohumera weakens the shoulders and arms more than the legs. Affects both sex.

Limb-girdle dystrophy : muscle weakness appears first in the upper arms and pelvis. Associated with poor balance, waddling gait, and inability to raise arms. Affects between ages 6 -10.

Mixed dystrophy: Occurs between 30-50 affects all voluntary muscles ,and causes rapidly progressive deterioration.

Cerebral palsy: is a group of neuromuscular disorder that result from damage to the central nervous system (the brain and the spinal cord) before, during and after birth.

There are three types of cerebral palsy:

Spastic cerebral palsy; In its severe form leaves the individual rigid, with muscles tense and contracted.

Athetoid cerebral palsy: condition results in involuntary movements-grimacing, writhing, sharp jerks that impair voluntary movements.

Ataxic cerebral palsy: rarest form> Includes disturbed balance, lack of coordination, underachieve reflexes, tremor etc.

Spina bifida : is a birth defect that is related to the development of the embryonic neural tube, during the first trimester of pregnancy.

Types:
Polio :
Muscular dystrophy: four main forms.
Cerebral palsy:- 3three types
Spina bifida:

1.4.5 Learning Disability (L.D)

Learning disability is a disorder that affects people's ability to either interpret what they see and hear or to link information from different parts of the brain. These limitations can show up in many ways: as specific difficulties with spoken and written language, coordination, self-control, or attention. Such difficulties extend to schoolwork and can impede learning to read, write, While children can be informally flagged by using observation techniques, actual diagnosis of learning disabilities is made using standardized tests that compare the child's level of ability to what is considered normal development for a person of that age and intelligence. Test outcomes depend not only on the child's actual abilities but also on the reliability of the test and the child's ability to pay attention and understand the questions.

L.D is a disorder that
affects peoples abilty to interpret what they see and hear or link information from different parts of the brain.
May manifest as specific difficulties with spoken & written language, co-ordination, self control, or attention.

Proper assessment of the learning disabled is very important, because it must be relevant to the goals and objectives, the teaching methods, and the kind of help the child will receive. A major factor that makes it difficult to assess a learning disabled child is the confusing nature of the disability itself. In addition, there is a great deal of variation in characteristics among learning disabled individuals, which makes assessment difficult. Some of these characteristics are found in other handicapping conditions too, therefore it becomes difficult to differentiate whether the person is primarily learning disabled, or has some other handicap. Formal testing uses standardized tests, while informal testing uses nonstandardized tests.

While normal variation exists among people in their abilities to learn, the term "learning disability" refers to a specific brain condition that precludes effective learning. Neuropsychological causes of learning disability must be differentiated from emotional, environmental, attitudinal, or other causes and from normal individual differences in learning potential.

Structural damage to the brain can occur as a result of birth trauma, insufficient oxygen, encephalitis, and so forth. Damage may result in such problems as reading impairment (dyslexia) delayed maturation, clumsiness, hyperactivity, and perceptual disorganization. Electrical, chemical, and metabolic abnormalities in the brain can also occur that interfere with communications among the neural structures. Unusual development of lateralized brain function may interfere with the brain's ability to integrate visual and auditory signals, thus confusing an individual's ability to match the sights with the sounds of Language.

Identification:

Identification: -ability- -performance discrepancy. -Poor achievement -Variable performance in different areas.

Individual is assessed usually as learning disabled after they start having problems in school. A variety of tests are administered and the three indicators on the basis of which learning disability have to be identified are:

a) Discrepancy between ability and achievement

b) Poor achievement.

c) Scattered assessment of profile indicating variable performance in different area.

There are certain behavioral imbalances of learning disabilities in children, which help in their identification, like:

- Average or above average in intellectual capacity.
- Impulsivity
- Inability to focus on tasks.
- Inability to shift from one activity to another.
- High rates of seemingly purposeless activity
- Wrong or inappropriate perceptions
- Reversal in writing and reading and transposition
- Problems of left-right, up- down orientation.
- Difficulty in understanding and remembering oral message.
- Difficulty in interpretation and remembering visual images.
- Language and organization difficulties.
- Haphazard/ Disorganized approaches to work.
- Thinking problems in relation to abstract ideas and concepts.
- Poor fine motor coordination.
- Clumsiness
- Hyperactivity.
- Omissions, substitution and reversals of letters in a word.
- Skips line while reading.
- Unable to follow verbal directions.
- Subject to mood swings
- Appears to be forgetful.
- Lack of judgement in social situations.

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- Interpersonal problems.
- Lack of social competence in school.
- Low self-concept.

Subtypes of learning disabilities

Types of L.D Academic learning disability –reading, writing, arithmetic Developmental learning disability: Attention, memory, perception, thinking, language, perceptual motor

Chalfant and Kirk (1984) describe two kinds of students: those with "academic learning disabilities," like disabilities in reading,arithmetic, spelling, and writing; and those with "developmental learning disabilities," which are disorders or dysfunctions in the processes or abilities necessary to acquiring academic skills.

These disabilities can include deficits or disorders in attention,memory, perceptual-motor functioning, perception, thinking, or language.

Assessment of L.D.: sensory, motor, affective, social, conceptual, language and communication.

Assessment of learning Disability

Assessment of pre-school level children can be done in the areas of sensory, motor, affective, social, conceptual, language ,communication. Developmental Indicators for the Assessment of Learning test can be used to test visual and auditory activity, gross and fine motor skills, dexterity, anxiety, attention span, persistence, social skills, receptive and expressing language skills and articulation.

At the elementary and secondary level identification of learning disability can be done with the use of standardized instruments, teacher observation, and achievement index. The learning disabled should undergo neurological examination, reading tests, visual motor gestalt test, draw a man test, gross and fine motor tests, hyper- kinesis, reading problems, ontological findings, and biological screening. These medical characteristics are necessary to deal with learning disabled children besides intellectual and achievement functioning.

Other evaluation would consist of

- Developmental disabilities.
- Discrepancy between ability and potential
- Process of learning

- Psychological test findings
- Health, birth history, physical and development, emotional factors, educational factors and adjustment.
- Language- receptive and expressive
- Written expression-spelling, handwriting, and ideas.
- Reading
- Mathematics
- Attention, perception, motivation, emotion, memory, and behavior.

Some of the widely used tests are

Assessment: development, learning,emotions.
Written expression, reading, mathematics,
Attention, perception, motivation, memory, behavior.

Informal Reading Inventory, Wechsler- Intelligence scale for children (WISC R &III), Draw a Man Test, Aston Index Test for Learning Difficulties, Peabody Picture Vocabulary Test, Illinois Test of Psycholinguistic Skills, Vineland Social Maturity Scale, Kauffman Test of Educational Assessment, Wide Range Achievement Test.

Behaviour

Checklist for Screening the Learning Disabled (BCSLD). Diagnostic Test of Learning Disability (DTLD). Swarup –Mehta Test of Thinking Strategies.(TTS).

1.4.6 Attention Deficit and Disruptive Behavior Disorder /Attention Deficit Hyperactive Disorder

An attention deficit disorder is a medical condition which affects a person's ability to concentrate and maintain attention to tasks.

Passive inattention (drifting off, daydreaming, etc.) is generally referred to as ADD (attention deficit disorder). When inattention is combined with significantly heightened activity level and impulsiveness,ADHD (attention deficit hyperactivity disorder) may be a more appropriate term.. Often the two terms are used interchangeably and the combination term "AD/HD" is frequently used .

Attention Deficit Disorder (ADD) and Attention Deficit/Hyperactivity

Disorder (ADHD) :

ADD and ADHD are diagnoses applied to children and adults who consistently display certain characteristic behaviors over a period of time. The most common behaviors fall into three categories: Inattention, Hyperactivity, and Impulsivity. People who are inattentive have a hard time keeping their mind on any one thing and may get bored

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with a task after only a few minutes. People who are hyperactive always seem to be in motion. They can't sit still and may feel constantly restless. People who are overly impulsive seem unable to curb their immediate reactions or think before they act.

> ADD/ADHD: Is a medical
> Disorder which affects a person's ability to concentrate and maintain attention to a task.

Identification:

According to the American psychiatry Association, people with attention deficit-hyperactivity disorder show developmentally inappropriate degrees of inattention, Impulsivity-impatience, difficulty in delaying responses, blurting out responses, does not follow instructions, initiate conversation at inappropriate times, Hyperactivity-fidgetiness, squirming in one's seat, talks excessively, feelings of restlessness and difficulty in engaging in quiet sedentary activities.

> Identification: developmental inappropriate attention, impulsivity-impatience, delayed response, comprehension, restlessness, excessive talking.

Associated features are said to include:

Low self esteem

Mood instability,

Low frustration tolerance,

Academics under achievement,

Problems with social relationships,

Temper tantrums.

Disorganized work habits.

The characteristics associated with the attention deficit hyperactivity disorder are similar to those associated with learning disabilities. For example, inattention, hyperactivity, and impulsivity are key behavioral characteristics associated with learning disabilities and "clinically significant distress or impairment in academics functioning" is and analogous phrase for "significant discrepancy between ability and achievement."

Assessment

The diagnosis is based upon a set of behavioral characteristics, and as such, can be a rather subjective process. Often a pediatrician, psychologist, or psychiatrist makes the diagnosis based upon observation of characteristics which are observed at home or at school. Frequently the school will also be involved in the process either as part of an evaluation for possible special education services or simply through behavior ratings which are completed by teachers.

There are also various types of computerized performance "tests" which are designed to directly measure a student's ability to maintain attention to a computer task. However, this type of assessment is most useful and appropriate in a medical setting which can often provide a more controlled evaluation and allows the option of trial medication. This can be especially beneficial to help determine the potential effectiveness of medication if a diagnosis is made. It is very important to remember that AD/HD is not diagnosed by the school, but the school can take a very active role in the diagnosis.

In early Childhood, it may be difficult to distinguish symptoms of attention deficit/hyperactivity disorder from age- appropriate behaviors in active children.

Symptoms of inattention are common among Children with low IQ who are placed in academic settings that are inappropriate to their intellectual ability. These behaviors must be distinguished from similar signs in children with Attention-Deficit/Hyperactivity Disorder. In children with mental retardation, an additional diagnosis of Attention Deficit/Hyperactive Disorder should be made only if the symptoms of inattention or hyperactivity are excessive for the child's mental age. Inattention in the classroom may also occur when children with high intelligence are placed in academically understimulating environments. Attention Deficit/Hyperactivity Disorder must also be distinguished from difficulty in goal directed behavior in children from inadequate, disorganized, or chaotic environments. Reports from multiple informants (e.g., baby sitters, grandparents, parents or playmates,) are helpful in providing a confluence of observations concerning the child's inattention, hyperactivity, and capacity for developmentally appropriate self-regulation in various settings.

Attention Deficit/ Hyperactivity disorder is not diagnosed if the symptoms are better accounted for by another mental disorder (e.g., mood disorder, Anxiety disorder, personality disorder, or personality change due to a general medical condition).

Diagnostic criteria for Attention-Deficit /Hyperactivity Disorder

A. Either (1) or (2).

(1) six (or more) of the following symptoms of **inattention** have persisted for at least 6 months to a degree that is maladaptive and inconsistent with developmental level:

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Inattention

(a) Often fails to give close attention to -details or makes careless mistakes in schoolwork,Work, or other activities

(b) Often has difficulty sustaining attention in tasks or play activities

(c) Often does not seem to listen when spoken to directly

(d) Often does not follow through on instructions and fails to finish schoolwork, chores, or Duties in the workplace (not due to oppositional behaviour or failure to understand Instructions)

(e) Often have difficulty organising tasks and activities

(f) Often avoids, dislikes, or is reluctant to engage in tasks that require sustained mental effort (Such as schoolwork or homework)

(g) Often loses things necessary for tasks or activities (e.g., toys, school assignments, pencils, Books, or tools)

(h) Is often easily distracted by extraneous stimuli

(i) Is often forgetful in daily activities

(2) Six (or more) of the following symptoms of hyperactivity- impulsivity have persisted for at least 6 months to a degree that is maladaptive and inconsistent with developmental level:

Hyperactivity

(a) Often fidgets with hands or feet or squirms in seat

(b) Often leaves seat in classroom or in other situations in which remaining seated is expected

(c) Often runs about or climbs excessively in situations in which it is inappropriate (In adolescents or adults, may be limited to subjective feelings of restlessness)

(d) Often has difficulty playing or engaging in leisure activities quietly

(e) Is often 'on the go" or often acts as if "driven by a motor'

(f) Often talks excessively

impulsivity

(g) Often blurts out answers before questions have been completed

(h) Often has difficulty awaiting turn

(I) Often interrupts or intrudes on others (e.g., butts into conversations or games)

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B. Some hyperactive-impulsive or inattentive symptoms that caused impairment were Present before age 7 years.

C. Some impairment from the symptoms is present in two or more settings (e.g., at school [Or work] and at home).

D. There must be clear evidence of clinically significant impairment in social, academic,or occupational functioning.

E. The symptoms do not occur exclusively during the course of a Pervasive Developmental Disorder, Schizophrenia, or other Psychotic Disorder and are not better accounted for by another mental disorder (e.g., Mood Disorder, Anxiety Disorder, Dissociative, or a personality Disorder).

1.5   UNIT SUMMARY : THINGS TO REMEMBER

- The assessment can be described as a process of collecting data to make decisions about student.

- Five kinds of decisions regarding students – evaluation of the individual, program evaluation, screening, placement, and intervention planning   made on the basis of assessment data.

- Visually handicap is defined in terms of visual acuity, field of vision, and visual efficiency.

- Identification: excessive rubbing of the eyes, red eyelids, watery eyes, tilts head forward, holds objects and books close to eyes, requires help to copy notes from the

- blackboard, Blinks, squints, bumps into peo   and objects, poor eye-coordination, keeps book close to the eyes.

- Cognition, Academics,Physical, Behavior, Communication.

- The essential feature of mental retardation is significantly subaverage general intellectual functioning (criterion A) that is accompanied by significant limitations in adaptive functioning in atleast two of the following skill areas: communication, self-care, home living, social/interpersonal skills, use of community resources, self direction, functional academic skills, work, leisure, health, and safety (criterion B). The onset must occur before 18 years of age (criterion C).

- **Identification: slow rate of learning, poor problem solving skills, slow reaction time, poor attention span, short term memory deficit, repetitive learner, poor language and academic skills poor comprehension.**

- **Hearing impairment is characterized by increasing inability to detect or process auditory stimuli as the hearing loss increases in severity.**

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- **Identification: lack of linguistic skills , difficulty in comprehension &language, specific problem in reading & speaking ,difficulty in interpreting information, innate intellectual capacity normal .**

- **Types of assessment: Audiometric ,   speech,   communication,Cognitive , developmental, academic, vocation, and behavior.**

- Orthopedic Impairment are conditions that generally involve the muscular , skeletal, or central nervous systems and affect movements and mobility. The term includes impairments caused by congenital anomalies ,(such as clubfoot) impairments caused by disease , (such as poliomyelitis) and impairments from other causes (such as neurological problems – cerebral palsy).

- Poor motor control, joint pain, limits range of experience, Absenteeism, jerky movements, affects writing, eating and handling objects affects academic achievement, restricts movements etc.

- Types:Polio ,Muscular dystrophy:(four main forms.)Cerebral palsy:(three types) Spina bifida:

- L.D is a disorder that affects peoples abilty to interpret what they see and hear or link information from different parts of the brain.

- May manifest as specific difficulties with spoken & written language, co-ordination, self control, or attention.

- Identification:-ability-performance discrepancy; Poor achievement;

- Variable performance in different areas

- ADD/ADHD: Is a medical Disorder which affects a person's ability to concentrate and maintain attention to a task.

- Identification: developmental inappropriate attention, impulsivity-impatience, delayed response, comprehension, restlessness, excessive talking.

1.6 CHECK YOUR PROGRESS

1)   Do you believe students with disability ought to participate in standardized testing? If so, what are the major technical difficulties in ensuring appropriate testing of these students? If not. Where do the school personnel draw the line in making decisions about the kinds of students who will participate?

2) How would you identify a visually impaired child?

- What are the different testing techniques used for assessing the visually impaired children?

- What are different areas of assessment?

3) Name the subtypes of learning disabilities?

- What are the various assessment procedures for identifying the learning disabled?

- Prepare a checklist to identify children with learning disability?

4) How would you identify a hearing impaired child?

- What are the testing and assessment procedures for the hearing impaired child?

5) How would you identify a mentally retarded child? List the various testing measures that can be used for identification.

1.7 ASSIGNMENT / ACTIVITIES

- Find a journal or textbook that focuses on students with physical disabilities.Find at least three articles that describes specific teaching activities you would like to use to help children with orthopedic impairment to be successful in class.

- Observe a professional ,other than a teacher , who works with children with locomotor impairment Describe what you see and how it relates to classroom instruction.

- To help understand how people with sensory impairment experience the world, try some of these simulations and note your reactions to them: Blindfold yoursewlf and get ready for work..blindfold yourself and let your friend take you around the campus. Watch TV for one hour with the sound turned off. Have a conversation with a friend by using only gestures.

- Imagine that you are the teacher in a classroom with mentally retarded children.What decision will you take to identify and classify them into groups? What assessment measure would you use and in which area? What activities activities would you use to assess and plan an IEP.

1.8 POINTS FOR DISCUSSION/CLARIFICATION

After going through the unit you may like to have further discussion on some points and clarification on the other. Note down those points.

1.8.1 Points for Discussion

1.8.2 Points for Clarification

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UNIT – 2 : TOOLS AND AREAS OF ASSESSMENT

STRUCTURE

1   Introduction

2   Objectives

3   Definitions

4   Summary

5   Revision

6   Assignment/Activity

7   Points For Discussion And Clarification

8   References / Further Readings

2.1 INTRODUCTION

Curriculum design is a two level process. The first level is the development of a curriculum, which is based on the needs, and the characteristic of the learner .The second level of curriculum design emphasizes individual needs. This is the basis for all special education programs and is highlighted by the development of the individualized education program.(IEP). It may be viewed as a system of management, which may provide the student most efficient and effective instructions.

Students with disabilities are trained to master the content following a step by step approach. Training the student to learn strategies will enable the student to learn content and also demonstrate knowledge.

First Signs has conducted an extensive review of current screening tools available and have selected several that meet our recommendation criteria. All are highly validated, brief, and easy to use and score.

These include:

Developmental and Behavioral Screening Tools: (Birth to 36 Months)[1]

Most developmental and behavioral screening tools have a wide application with children of varying ages, allow flexibility to capture parent report with minimal

assistance, ask less threatening and more universal questions of parents, and coordinate with hallmark developmental milestones. Because of their broad use, developmental and behavioral tools often lack the sensitivity to screen specifically for autism and therefore require follow up with an autism screening tool when a developmental screening raises concerns.

Autism Screening Tools: (Birth to 36 Months)[2]

Most autism screening tools are designed to detect autism spectrum disorders specifically, concentrate on social and communication impairment in children 18 months of age and older, and focus on all three DSM-IV criteria for autism. Their limitations lie in the lack of highly validated autism screening tools available for children under 18 months of age. Since autism screening ideally would follow a developmental screening that has indicated concerns, the administering clinician should directly observe the child in addition to using an autism screening tool questionnaire.

Asperger Syndrome/HFA Screening Tools: (4 years to adult)[3]

Most Asperger Syndrome/high functioning autism (HFA) screening tools are designed for use with older children, and are used to differentiate these disorders from other autism spectrum disorders and/or other developmental disorders, such as mental retardation and language delays. These tools concentrate on social and behavioral impairment in children four years of age and older (up to adulthood), who usually develop without significant language delay. Qualitatively, these tools are quite different from the early childhood screening tools, highlighting more social/conversational and perseverative/behavioral concerns

Developmental and Behavioral Screening Tools: (Birth to 36 Months)[1]

Most developmental and behavioral screening tools have a wide application with children of varying ages, allow flexibility to capture parent report with minimal assistance, ask less threatening and more universal questions of parents, and coordinate with hallmark developmental milestones. Because of their broad use, developmental and behavioral tools often lack the sensitivity to screen specifically for autism and therefore require follow up with an autism screening tool when a developmental screening raises concerns.

Considering the heterogeneity of characteristics associated with autism spectrum disorders, it is not surprising that questions often arise about how best to evaluate children with this diagnosis. Thorough assessment depends on information gathered

through a variety of methods and relies on the collaboration of many individuals including, professionals, family members, and educators. There is not a single test that when used alone can provide a definitive diagnosis of an autism spectrum disorder, or that can guide effective intervention planning. Assessment is a process that may serve a variety of purposes and involve a number of different procedures.

The first step in the assessment process is to consider the purpose of the evaluation. The purpose of the assessment will likely depend on the referral question, source of referral (e.g., parent, teacher, other professionals), and setting (e.g., school, clinic, residential placement). Screening for early indicators of autism spectrum disorder is one potential purpose of assessment. Another reason to conduct an evaluation would be for diagnostic purposes. A diagnosis of a Pervasive Developmental Disorder, which includes Autistic Disorder, Asperger Disorder, and Pervasive Developmental Disorder-Not Otherwise Specified, is usually based on criteria from the most recent version of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR; APA, 2000). Assessment for the purpose of diagnosis typically occurs in clinics or private practices and is led by psychiatrists, psychologists, or physicians. Psychologists employed by schools may also conduct a diagnostic assessment for the purpose of establishing eligibility for special education services. Another purpose of assessment could be to measure a child's cognitive and academic strengths and weaknesses, and/or emotional health. Often this type of assessment provides the best information for intervention and curriculum planning. Finally, assessment procedures may be used to document intervention efficacy or for research purposes. To summarize, the purposes of assessment are as follows:

- Screening

- Diagnosis/Identification

- Qualification for Services

- Assessment of Strengths, Weaknesses, and/or Emotional Health

- Intervention or Curriculum Planning

- Documentation of Intervention Efficacy/Research

Assessment procedures depend on the referral question, referral source, setting, characteristics of the individual, and purpose of evaluation. A panel consisting of members of the Child Neurology Society, American Academy of Neurology, the

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National Institutes of Health, and various professional and parent organizations has established practice parameters for the diagnosis and assessment of autism spectrum disorders (Filapek et. al. 1999). This committee recommended a dual-level approach to the assessment of autism. Level One assessment entails screening all children considered at-risk for atypical development at every well-child visit. This initial screening includes general measures of developmental progress, using instruments such as The Ages and Stages Questionnaire, Second Edition (ASQ; Bricker & Squires, 1999). If indicators of autism are found, then the child is screened for autism using tests specifically designed for this purpose. The Checklist for Autism in Toddlers (CHAT; Baron-Cohen, Allen, & Gillberg, 1992) is a short screening tool composed of nine questions for parents and involves five structured interactions between the examiner and child. The CHAT is used only to determine whether further diagnostic testing for autism is warranted, not to obtain a formal diagnosis. Early indicators of autism that are evident within the first year include lack of eye contact to initiate joint attention; emotionally distant behavior or dislike of affection; lack of imitation or social reciprocity; lack of functional use of nonverbal communication; and inappropriate use of toys. Screening for autism is also recommended if a sibling or other family member has a diagnosis within the autism spectrum. If a child is determined to be at-risk for a developmental disorder, then a second level of evaluation is pursued. The purpose of Level Two assessment is to establish a diagnosis and identify strengths and weaknesses for intervention planning. Specific procedures and tools that can be used for Level Two assessment are described below. The dual-level approach is designed to increase rates of early identification because early intervention has been shown to lead to better outcomes for children with autism spectrum disorders.

Indiana's Article 7 of the Indiana State Board of Education, Division of Exceptional Learner's stipulates an assessment process and procedures required to determine eligibility for special education services as a student with an autism spectrum disorder. The school's case conference committee is to determine a student's eligibility for services under the category of Autism Spectrum Disorders based on information obtained from the required evaluation procedures. Article 7 does not specify the order in which specific procedures are to be performed. The information provided below lists the specified procedures in a logical sequence that they would likely occur in the assessment process. Specific tests mentioned for each step are identified by the author and are not a requirement identified under Article 7. In addition, the following procedures are not unique to Article 7, and reflect best practices in assessment in general.

The first step in the assessment process is to interview the parents to obtain a social and developmental history and other information about the child's current level of functioning. Questions should be aimed at determining the onset of the disability, such as if the parents noticed early communication problems, awkward social interactions,

unusual play, or hyper- or hypo- sensitivity to sensory stimuli. Information about family history of illness or psychopathology should also be obtained during the parent interview. There is a dramatic increase in the rates of autism in first-degree relatives, as well an increased risk of social, communication, learning, and emotional difficulties (Filapek et al., 2000). If age-appropriate, the interviewer should inquire about the child's academic history and current educational performance.

A standardized tool for obtaining information about the child's developmental history and current functioning is the Autism Diagnostic Interview-Revised (ADI-R; Lord, Rutter, & Le Couteur, 1994). The ADI-R is a semi-structured interview for caregivers that addresses early and current development. It is comprised of five sections: opening questions, communication, social development and play, repetitive and restricted behavior, and general behavior problems. The interviewer uses the caregiver's descriptions of the child to code the behavior on a scale from 0-3, with 0 being absence of behavior and 3 representing extreme severity. Research on the ADI-R found good reliability and validity, although the results are somewhat limited by the small sample size used for the study (Lord, Rutter, & Le Couteur, 1994). Administration time is approximately 1-hour. Additional time is needed for scoring.

A logical next step in the assessment process would be to administer behavioral checklists to caregivers, teachers, and/or paraprofessionals. There are many rating scales available that measure a wide-range of behaviors (e.g., the Achenbach scales, Behavior Assessment System for Children). If an autism spectrum disorder is suspected, then Article 7 requires a checklist of characteristics that match current DSM criteria. The Gilliam Autism Rating Scale (GARS; Gilliam, 1995) is a reliable and valid instrument based on DSM criteria that is completed by a parent, teacher, or professional who is familiar with the child. The GARS takes 5-10 minutes to complete and has four subtests: stereotyped behaviors, communication, social interaction, and developmental disturbances. It is used to estimate the probability of autism in children ages 3-22 and produces standard and percentile scores based on a normative sample of individuals with autism.

Another rating scale is the Asperger Syndrome Diagnostic Scale (ASDS; Smith-Myles, Bock, & Simpson, 2001). The ASDS is appropriate to use with individuals ages 5-18 who possess characteristics associated with Asperger Syndrome. It is completed by a person who knows the individual well, such as a teacher, a family member, or other caregiver. Items on the ASDS are based on DSM-IV criteria and are separated into five subscales: language, social, maladaptive behavior, cognitive, and sensorimotor. The ASDS takes 10-15 minutes to complete and yields standard scores, percentile ranks, and an Asperger Quotient (ASQ). The reliability of the ASQ is .83, but the subscales are less reliable when considered individually. The ASDS was found to discriminate between a sample of individuals with and without Asperger's at 85% accuracy.

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Article 7 also requires an observation of the child across a variety of settings. In practice, the evaluation team rarely makes visits to the child's home, but information about the child's behavior in this setting provides valuable information that can aid in diagnosis and intervention planning. It should be noted that behaviors associated with autism spectrum disorders, must be present in all settings in order to receive a diagnosis. Observers should take special note of the child's level of communication (including practical conversation skills), social interaction, and engagement in restricted, repetitive, or stereotyped behaviors. The Childhood Autism Rating Scale (CARS; Schopler, Reichler, & Renner, 1988) is a tool that can be used to structure observations of children over the age of two. This scale has adequate reliability and validity. Often the CARS is used incorrectly as an interview or checklist. The primary source of information is gained through observations of the child, although the examiner can also use parent or teacher reports to supplement observational data. The CARS contains 15 items that were constructed based on Kanner's original description of autism and other characteristics associated with the behavior of young children with this disability. The examiner assigns ratings based on a four-point scale that describes the amount of deviation from typical development. The total rating is used to determine where the child falls in three categories defined by the test authors as nonautistic, mild-moderately autistic, and severely autistic. Although not specifically required under Article 7, direct interaction with the child is an important extension of the observation process. This provides the examiner with additional information about how the child interacts with others.

The Autism Diagnostic Observation Schedule (ADOS; Lord, Rutter, DiLavore, Risi, 2001) is a standardized assessment that utilizes a variety of structured and unstructured activities to elicit a wide range of behaviors associated with autism spectrum disorders. The ADOS examines the following areas: communication, social interaction, play, imagination, and stereotyped behaviors and restricted interests. This measure uses four different modules that are each individually designed for a particular developmental age and language ability level (from nonverbal to verbally fluent). The activities are meant to be enjoyable for the examinee while providing a standardized context for interactions. After the administration of the ADOS, examiners use their notes of observations collected throughout the evaluation and assign ratings in specific categories based on degree of abnormality. These ratings are used to determine an ADOS classification, which is used in conjunction with other assessment information to determine an overall diagnosis. The ADOS has adequate psychometric properties. Reliability is good overall, but Module 4, which is designed for older verbally fluent individuals, is somewhat less reliable. Items that were not found to adequately discriminate those with autism spectrum disorders from other individuals are not included in the final score but still can provide useful information. The ADOS does not differentiate Asperger Syndrome from autism; therefore, if Asperger Syndrome is suspected, the Asperger Syndrome Diagnostic Scale, which was described earlier, would provide a good supplement.

Standardized measures of intellectual ability and academic achievement are required under Article 7, but using such tests with individuals with autism spectrum disorders is controversial. In brief, standardized intellectual and achievement tests may not yield accurate results or provide useful information for treatment or educational planning because they are heavily reliant on verbal ability, auditory processing, and the ability to follow sequential directions. These are areas of particular difficulty for individuals on the spectrum. In addition, the testing environment can be problematic (e.g., unfamiliar room and examiner, break in typical routine) and standardized procedures may be near impossible, especially if the child possesses behaviors that interfere with the testing process. The Wechsler tests and the Stanford-Binet-IV are commonly used for school-aged verbal children. The Stanford-Binet may be more appropriate to use with individuals with autism spectrum disorders because it has a lower floor (a greater number of items meant for a lower developmental age) and it also includes more nonverbal options and subtests that measure memory. For individuals who are nonverbal, the Test of Nonverbal Intelligence-Third Edition (TONI-3; Brown, Sherbenou;& Johnsen, 2001) and the Leiter International Performance Scale-Revised are options with good reliability and validity that do not require verbal responding. However, these tests may not provide an accurate measure of ability in individuals with autism either. For example, the TONI-3 requires the examiner to pantomime the directions. Individuals with autism spectrum disorders often have difficulty understanding nonverbal forms of communication, so this may be confusing for this group.

. The adaptive behavior of the individual is another area assessed in the evaluation process. According to Sattler (1992), adaptive behavior assessment considers two issues, "(a) the degree to which individuals are able to function and maintain themselves independently and (b) the degree to which they meet satisfactorily the culturally imposed demands of personal and social responsibility." Parents, teachers, paraprofessionals, or other caregivers typically complete adaptive behavior checklists. An example of a reliable and valid measure of adaptive behavior is the Vineland Adaptive Behavior Scales (VABS; Sparrow, Balla, & Cicchetti,1984). The VABS can be used for ages 0 to 18 and comes in three editions, two of which are completed by the examiner after conducting an interview; the other is filled out by a teacher or paraprofessional. All versions of the VABS measure five domains: Communication, Daily Living Skills, Socialization, Motor Skills, and Maladaptive Behavior. The VABS is norm-referenced and yields standard scores.

Finally, speech and language pathologists, occupational therapists, and/or physical therapists should evaluate the student to determine difficulties in related areas. The speech evaluations should measure not only receptive and expressive language, but

also the social and pragmatic aspects of communication. Finally, fine and gross motor skills and sensory processing are evaluated, usually by an occupational therapist and/or physical therapist.

Recently there has been increased awareness of emotional difficulties, particularly anxiety and depression, experienced by high-functioning individuals with autism. Therefore, it is recommended that measures of social-emotional well-being be used in the evaluation process, especially when considering intervention planning. There are many reliable and valid tests for anxiety and depression available for use with children, adolescents, and adults that are easy to administer and score, adding little additional time to the overall evaluation process.

The evaluation of individuals with autism spectrum disorders can best be described as multidimensional. There are a variety of reasons why an assessment is initiated. Assessment procedures depend on the purpose of the evaluation, the referral question, the source of referral, and the setting of service provision. The dual-level approach to assessment involves screening all children at-risk for developmental delay for characteristics associated with autism spectrum disorder, followed by thorough diagnostic testing and evaluation of individual strengths and weaknesses. In Indiana, Article 7 articulates the process and steps that should be taken when determining if a child meets eligibility criteria for an autism spectrum disorder. Article 7 assessment procedures can be considered best practices for the assessment of autism spectrum disorders in general. The accurate identification and assessment of autism spectrum disorder is dependent on the assessment process, not the results of a single measure or procedure. As such, collaboration between professionals, parents, and teachers is a necessary component of an effective assessment process and an accurate interpretation of information gathered.

2.2 OBJECTIVES

After reading this course unit you, as a student should realize the following objectives:

- Comprehend the concept of Individualized educational program.
- Understand the components of the individualized educational program.
- Understand and apply the educational implications with respect to Learning Disability. ADD/ADHD, Mental Retardation, Hearing

Impairment, Visual Impairment, and Physically Disabled.

2.3 INDIVIDUALIZED EDUCATIONAL PLAN

The IEP includes (A) a statement of the present level of educational performance of a child, (B) a statement of annual goals, including short term instructional objectives, (c) a statement of the specific educational services to be provided to such children, (D) date for initiation of the services and their anticipated duration. (E) appropriate objective criteria and evaluation procedures and schedules for determining, whether instructional objectives are achieved.

The above mentioned points refer to the five components of curricular design: (1) assessment of the learners needs; (2) development of curriculum components to meet those needs; (3) identification of support systems and instructional settings to meet students needs; (4) implementation of program management and time-line components; and (5) development of a program monitoring system. (Cartwright et al ., 1989; Price & Goodman,1980).

2.3.1 Components of IEP

Assessment is the basis of the entire system. The strengths and the weakness of the child form the basis for the development of the instructional design and the IEP. In the IEP and in systematically developed instruction, sampling the learner's entry behavior is very vital. The IEP assessment describes a student's general level of performance, while the process of instructional design continues and assessment is specific as compared to the former, which is broader.

The second component deals with curriculum options commonly known as annual goals and short-term instructional objectives. Based on the assessment objectives are written in behavioral terms along with broad curriculum goals. The third component of the IEP identifies support services needed by the learner. The main objective is to increase the probability of student progress through the IEP and instructional design.
The fourth major area of IEP is program management. The anticipated duration of the program is stated to assist in overall time management and suggest schedules for goal reevaluation.

The final component evaluates the program and its accountability and suggests procedures for ongoing student's assessment of behavior.

2.4 EDUCATIONAL IMPLICATIONS OF DISABILITIES

2.4.1 Visual Impairement

Curriculum is the totality of experience attained by the student in the classroom, playground, laboratory, etc. Curriculum meant for sighted children should be followed in the education of visually disabled children without major omission. In order to perform well in curricular aspects, visually disabled children should learn skills, which are peculiar to blindness.

These skills are called ' plus curriculum activities', which aim at developing the mind and body of the visually disabled child.

Body Images: Lydon and Mcgraw (1982) define body image as the knowledge of one's body parts, the function of each, and their relationship to one's spatial environment. Teaching of body concepts is very vital.

Physical Orientation (including O&M) Restriction to move about is one of the objective effects of blindness. Therefore, orientation and mobility become an important area of training.

Tactual Discrimination: Ability to discriminate textures will help in improving Braille reading.

Auditory Discrimination: Better discrimination of sounds is an important requisite for effective mobility skills.

Verbalism: For the unseeing child, development of proper gestures while.Speaking, accent, etc. are of vital importance.

Mannerism: Development of proper mannerism contributes to the social Integration of the visually disabled child. unwanted mannerisms of visually Disabled children could be controlled through timely intervention and Substituted activities.

Arithmetic: Use of special appliance such as abacus or Taylor frame also is a skill expected from visually disabled children.

Daily Living Skills: These are known as survival skills and are important for the self-independence of the child. Besides these areas, finger manipulation, guidance and counselling, socialisation, creative arts, etc., are also treated as the components of plus curricular activities.

> Plus curriculum activities - aim at developing the mind and body of the visually disabled child.
>
> Body Images ,Tactual Discrimination, Verbalism Auditory Discrimination ,Mannerism, Arithmetic, Daily Living Skills.

Students with visual impairment may depend heavily on the auditory channel for gaining

- Information.
- Their slow rate of reading and writing will interfere with their pace of learning the content.
- Their movement in the environment may be restricted. Hence the seating arrangement should be such that they can easily gain help but also not restrict their mobility.
- In case of low vision child seat the students where they can best see and hear in case of a blind child.
- Emphasize on the essential attributes to a concept.
- Concrete hands on experiences through aids should be provided with lot of verbal explanation and instructions.
- The main points of the chapter should be prepared on a handout in large print and bright colors by the teacher aide and provided to the child with low vision.
- Reduce background distraction as far as possible.
- Allow for verbal or oral responses for tests/exams.
- Provide for provisions for specialist help e.g.: - learning of Braille, lip-reading etc. if required by the child.

Reduce distance between students and speaker as much as possible.

Reduce distracting glares and visual distraction as much as possible .The classrooms should have very little clutter so that there are no obstructed access to door and key classroom spaces. Avoid partially open cabinets, storage areas and classroom doors, doors that are fully opened or closed are the safest. During instructional representations and referring to the classroom structure and objects in the classroom auditory cues must be used. When presenting visually dependent materials, verbalize

written information, describe pictures, and narrate nonverbal sequences in videotapes or movies. Use complete sentences to provide additional context unnecessary noise should be reduced to focus content of instructional presentations. Keep instructional materials in the same place so that the student can find them easily.

> Reduce distance between students and speaker. Very little clutter. Verbalize written information, describe pictures, and narrate nonverbal sequences. Use complete sentences.

2.4.2

Mental Retardation:
Students with mental retardation need assistance learning the content and skills that many have the peers learn without special education intervention. Strategies, which are appropriate for teaching basic academic skills and communication to the learning disabled and speech impaired, are used to teach the mentally retarded as well. They also need special assistance related to real life experiences and adjusting their approaches to learning activities. Because of their slow rate of learning the students require:

- Alternative instructional presentations using varied examples and focus on functional skills.
- Opportunities to demonstrate understanding actively before moving to independent practice.
- More opportunities for practice than appropriate or necessary for classmates.
- Concrete examples when teaching new skills.
- Supportive and corrective feedback more often than necessary for classmates.
- Modification of tests and evaluation measures to compensate for learning problems.
- Evaluation of students performance and progress more frequently than appropriate or necessary for classmates.
- Instructional adaptation to the environment where what is being learned will be used.
- Breaking of lessons into smaller parts when teaching complex skills.

- Repeated teaching more frequently than necessary.

Teachers should make random checks to monitor behavior and reduce task avoidance. To improve task completion, the processes should be rewarded rather than product. They require direct instructions to recognize, understand and develop skills required to follow oral and written directions and social functioning The focus should be on basic skills and concepts needed for real life functioning. Eg: - For English language the child with Mental Retardation may be expected to learn only vocabulary that would be useful in everyday life. The use concrete objects and experiences should be used to teach Concepts. Teach content slowly reviewing frequently. Repeat Instruction and allow practice for each task till it is mastered. Extend the readiness skills for each lesson, building pre-requisite Skills and concepts. This can be done through the teacher-aide. Structure and guide opportunities for transfer and generalization. Reduce social isolation by providing opportunities for sharing experiences.

Mildly retarded persons can often duplicate or exceed motor performance levels of their normal peers. Often the social barriers which deficits in verbal communication pose /turn out to be the greatest obstacles to group approval and acceptance. The moderately retarded are often limited by lack of social behavior, thus complicating program development and methods of instruction.

2.4.3 Hearing Impairment

Teachers should be aware of the kinds of adaptation required to accommodate students who are hearing impaired.

Communication

Hearing impairment is primarily a communication problem (Champie 1986). The degree and kind of hearing impairment greatly affects the ability to communicate. For people Who have considerable hearing loss, there are several approaches to communication. The basic approaches are oral, manual, and total communication.

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The oral method of communication requires the student with a hearing impairment to use a combination of residual hearing, a hearing aid, and speech reading (the ability to understand another person by watching the lips and face) in order to comprehend. For self-expression, the student using the oral approach are able to verbalize.

Oral communication enables the hearing impaired person to communicate with hearing people who do not use manual systems.

The manual method of communication includes finger spelling and sign language. Finger spelling has a movement for each letter; words are spelled using particular Movement for different letters. Total communication includes the simultaneous presentation of signs (including finger spelling) and speech (through residual audition and speech reading). Theory suggests that learning both oral and manual codes is mutually reinforcing.

Researches however indicate that no one method or collection of methods can meet the individual needs of the children. The oral approach to language facilitates mainstreaming in that the student with a hearing handicap can understand and be understood by the classroom peers.

Other intervention techniques are the assisstive listening devices, cued speech and telecommunication devices. In cued speech people with hearing impairment Are taught to use visual cues provided by a speaker to decode what is being said.

Communication: oral- use a combination of residual hearing, a hearing aid, and speech reading in order to comprehend.
Manual-finger spelling &sign language.
Total-Simultaneous presentation of signs and speech.

Academic Achievement

Many academic skills draw on a student's general awareness of language. Students with hearing impairment are at risk for reading and writing difficulties because the hearing loss affects their ability to construct accurate representation of sound- letter

correspondence (Wray,Hazlett,&flexer,1988). Due to their conceptual limitations, they may have problems interpreting the language of others and expressing themselves in oral and written modes (Degler,&Risko,1979).

One of the strategy for teaching writing skills to hearing impaired students was with maximal auditory input through the use of hearing aids and frequency modulation (FM) auditory training units. Students are encouraged to listen before looking. The writing program consists of four stages 1) prewriting (2) drafting, (3) revising and editing, and (4) Final drafting.

> Teaching strategy-maximal auditory
> Input through the use of modulation
> Auditory training units.
> 4 stages of writing: prewriting, drafting, editing and final drafting.

Social Integration

Several researches indicate that hearing-impaired students initiate more interactions during free activities than during structured language periods. Social integration of the students should be planned and encourage them to initiate contacts with their hearing peers.

Language growth and development are critical to students with Hearing impairment.Many of them closely attend to visual stimuli as a compensatory learning strategy. Thus provide appropriate seating arrangements and ample visual cues. Seat the students where they can best see and hear. Reduce the distance between student and speaker as much as possible. Speak slowly and stress clear articulation rather than loudness when speaking. Seat him near center and away from distracting sounds. Face to face contact should be made as much as possible. Use of complete sentences will provide additional context during conversations or instructional presentation. Present visual cues for each task. Encourage classmates to take notes during oral presentations for students to transcribe after the lesson. Before beginning a new chapter, provide a list of words and their corresponding pictures for the child to learn so that he/she can follow in the class. For teaching emotional concepts and difficult phrases, the teacher can dramatize the situation. E.g.: - a child crying, a child being happy etc. Make sure that the hearing aid of the child is turned on before each lesson. Articulate clearly while speaking to a child with hearing impairment. Face the child while talking. Catch the child's attention frequently during a lesson. Speak slowly, rephrase and repeat information. If possible, use an O.H.P instead of the blackboard. Lectures can be taped for student to follow up at home. Encourage independent activities and social skills.

> Reduce distance
> Speak slowly and stress on clear articulation.
> Face to face contact is important.
> Use visual cues.
> Encourage independent work and teach social skills.

2.4.4 Locomotor Impairment

The educational planning for the orthopaedically handicapped children have the same basic requirement as other Children. Due to their disability some of their needs deviate from normal in degree and emphasis. They have additional needs and require separate programs.

In educating the Children with motor handicaps emphasis is placed on intellectual development, academic ability, and facilitating total adjustment to limitations. These children should be taught self -reliance, initiative, and the ability to make choices. They should learn to plan ahead for mobility and assistance. Teacher should teach them how to use different parts of the body. Teacher should help them to develop a self-concept and enable interaction with non-handicap peers. Teacher must help to develop creativity with t reference to music, drama, rhythm, and social experience and provide ample opportunities for personal development. Keep work material accessible and make adaptations when necessary. Modify assignments to accommodate medical and physical needs. Teach emergency procedures to all class members.

Instructional adaptations vary greatly depending on the type and severity of the individual's impairment. Teachers should encourage writing on spiral bound or note pads rather than on loose single sheets. Paper etc should be secured with tapes, clips or magnets. Limit response options to multiple choice or single word and thus reduce the effort of writing. Writing instrument should be such that requires less pressure. Use of word processor, computers and typewriters would be beneficial than writing and calculating. Use of study buddies in activities that require writing. Use of communication boards electronic devices with synthesized speech output can be used to facilitate communication. Enable the children to see that see that their disability is just one aspect of their lives. Use group activities to encourage socialization among students with disabilities and their peers. Teachers should be aware of the delicate balance that exists between needing special assistance and wanting to be normal. Teachers should be concerned with the impressions a student's special learning needs create, and try to maximize the extent to which a student is treated positively.

2.4.5 LEARNING DISABILITY

Due to their diverse problems, Learning Disabled students present different challenges to teachers. The two overwhelming needs of the learning disabled students are structure/organization and skill development.

Students need detailed schedules and directions. Directions should be short and precise so that the student is not over loaded. Teacher should express expectation in simple, concrete terms, which will prove helpful. Provide adequate time for the completion of assignment, which would reduce the confusion that results from not being able to finish tasks, and organize time in such a way that he is able to complete them.

> LDs require structure/organization &skill development.
> Detailed schedule &direction.
> Time to complete task
> Reduce confusion.
> Successful intervention-to interpret environment &understand classroom structure.

More difficult and intense activities can be scheduled with less difficult and less taxing activities. Do not allow many choices; provide specific things to do things which will keep the students on task rather than trying to decide what the task requires and how to respond.

If the interventions are successful, students will be able to interpret and understand their environment and classroom structure in a better and more positive manner. Skill Development : Learning disabled students generally benefit from careful, approaches to teaching students with deficits: precision teaching and direct instruction. Precision teaching involves planning, using, and analyzing the effects of instruction The two key components of **precision teaching** are pinpointing the aims and evaluating the effects of interventions. The **direct instruction** has components and a similar position to teaching (Haring and Schiefelbusch, 1976)

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1) Assessment of learner characteristics establishes the student's present level of skills.

2) Instructional goals are established and broken down into short-term objectives.

3) Instruction is systematically applied along with motivational sequences and reinforcement.

> Approaches to teaching: precision and direct instruction.
> Precision: planning, using, and analyzing the effect instruction Techniques.
> Direct: Assessment of student characteristic.
> Instructional goals into Short term objectives.
> Goal directed material
> Clear instructions
> Reinforcement techniques
> Monitoring success

4) Goal directed materials that maximize time -on – task is used.

5) Instruction is clearly and completely described with discreet and replicable steps.

6) Direct instruction emphasizes the use of motivating consequences that are effective for the individual.

7) Student's success is continually monitored to assess the rate of skill acquisition.

Besides the above mentioned the other approaches that are used to meet the special learning needs of the student who are exceptional in regular and special classrooms are Ability training, Attack strategy training.

Ability training: Teachers use ability training to organize their special education experiences in preacademic skills. It is done usually in the area of deficit. It is also an effective way to train students to use their own strengths to compensate for their ability deficits. E.g., a child with poor auditory discrimination can be taught using the whole language approach.

Attack strategy training: is a form of direct instruction in which students are taught small steps of a skill and rules for putting the steps together, so that they can use the strategy for any problem like those they have solved (Lloyd, 1980).

> Ability training:done in the area of deficit. Allows using their strengths to compensate their ability deficit.
> Attack strategy training: form of direct instruction. Small steps of a skill and rules are taught.

The process works in the following manner:

1) Analyze the curriculum content to determine the class of skills to be taught.

2) Devise a strategy for attacking problems that require the application of the skill being taught.

3) Analyze the attack strategy to decide how to teach it

4) Teach the attack strategy and evaluate performance.

Learning strategies

Learning strategies have been defined as techniques, principles, or rules that…. Facilitate the acquisition, manipulation, integration, storage, and retrieval of information across situations and settings.' (Alley Deshler1979). The goal of learning–strategy curriculum is to develop skills that will enable the individual to analyze and solve novel problems experienced in academic and non-academic settings. This enables the individual to meet the challenges presented by the immediate situation, but is also able to generalize these skills to other situations over time.

Researchers have developed many learning strategies. Self –monitoring technique is one in which the individual acts as an observer of his own behavior and records his own observations.Techniques like clinical prescriptive teaching, VAKT and movegenics have proved to be very effective. Self-correction is another technique, which is used to teach content.

Learning disabled students need to learn strategies that focus on how to learn. Researchers have developed many strategies to enable the learning disabled student to cope with academic underachievement. Instructional strategy based on the following eight acquisition and generalizations steps have been used by many researchers:

1.   Pretest the student's skill level.

2.   Describe the strategy to be learned.

3.   Model the strategy for the student.

4.Verbally rehearse the strategy steps.

5.Practice in controlled materials.

6.Practice in grade -appropriate materials.

7.Post-test

8.Generalize to other materials and settings

Learning strategies:

Develop skills to analyze & solve novel problems, generalize.

Use instructional strategies to acquire, organize, and express information.

Strategies: mnemonic, RAP.

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Using this instructional sequence, students are taught to use strategies to acquire, organize, and express Information. The approach often uses strategies that are easily remembered with a mnemonic aid, such as a word in which the letter cues the students to remember the steps of the strategy. For example, a strategy to teach students how to paraphrase the main idea and details of a paragraph is R-A-P. Read a paragraph. Ask yourself what are the main idea and two details. Put the main idea and two details into your own words. Students are taught to improve reading Comprehension in the same way.

Compensatory techniques

Many Learning Disabled students have been found to be having difficulty with Perception and Academic areas. Teachers can make use of compensatory techniques by enabling the student to bypass weak or deficit areas when remediation of these deficit areas seems impossible or requires more time that he looses the opportunity to work in other content areas which may be potential strengths. For Example, students with difficulty in reading and/or writing may be allowed to take oral rather than the

> Compensatory techniques:
> Bypass deficit areas for other content areas and allow the student to make use of time and effort spent.

written examinations or if a student has difficulty-taking notes is allowed to tape - record lectures.

2.4.6 Attention Deficit Disorder/ Attention Deficit Hyperactive Disorder

Interventions prescribed for ADD/ADHD are often the same as that used for Learning Disabled students. Some of the techniques like training or shaping appropriate behaviors, varied instructional strategies and creating stimulating learning tasks are similar to those used by the Learning Disabled students. Professionals concerned with students with attention deficit- hyperactivity disorder offer the following "principles of remediation" for improving inattention, excessive activity, impulsivity (Children with Attention Deficit Disorders, 1992)

Inattention

- Decrease the length of the task. Break one task into smaller parts to be completed at different times. Give fewer spellings and maths problems.
- Give fewer verbal directions and use of distributed practices rather than massed practice for learning tasks.
- Tasks presented to the student should be made interesting. Alternate between tasks of high and low interest levels. Encourage working in-groups and also sitting near the teacher. Use of overhead projectors may be beneficial.

- Increase the novelty of the task especially in later period of longer duration . Use of games may be used to over learn rote material. Correction of work may be done through games.

Excessive Activity

- Channelize activities into appropriate avenues rather than reducing activity.
- Encourage directed movement in the classrooms that is not disruptive and permit him to stand during seatwork especially during the end of the task.
- Involve him in activities. Let him do errands for the teacher. Activity can be used as rewards.
- Use active response in instruction. Encourage active responding like talking, moving, organizing, working, writing, and painting, reading, in various teaching activities. Encourage the child to ask questions related to the topic.

Impulsivity

- Encourage note taking (even just cue words). Give the child substitute verbal or motor responses to make while waiting. Encourage the child to rewrite or underline directions or relevant information using markers and colored pencils before beginning. Encourage doodling or play with clay, paper clips, while waiting or listening to instructions.

> Principles of remediation for:
> Inattention:
> Excessive Activity:
> Impulsivity:

2.5 UNIT SUMMARY : THINGS TO REMEMBER

- Curriculum design is a two level process. The first level is the development of a curriculum, which is based on the needs, and the characteristic of the learner .The second level of curriculum design emphasizes individual needs.
- The IEP includes (A) a statement of the present level of educational performance of a child, (B) a statement of annual goals, including short term instructional objectives, (c) a statement of the specific educational services to be provided to such children,   (D) date for initiation of the services and their anticipated duration. (E) appropriate objective criteria

and evaluation procedures and schedules for determining, whether instructional objectives are achieved.

- The strengths and the weakness of the child form the basis for the development of the instructional design and the IEP.

- The main objective is to increase the probability of student progress through the IEP and instructional design.

- Plus curriculum activities aims at developing the mind and body of the visually disabled child.

- Body Images ,Tactual Discrimination, Verbalism Auditory Discrimination ,Mannerism, Arithmetic, Daily Living Skills.

- Students with mental retardation need assistance learning the content and skills that many have the peers learn without special education intervention.

- Due their slow rate in learning , they require alternative instructional presentation.,more opportunities for practice, concrete examples.,supportive and corrective feedback.,modification of tests and evaluation measures. Instructional adaptation and repeated teaching of smaller units.

- The difficulties that the students with hearing impairment encounter most frequently occur in communication, academic achievement, and social integration.

- Communication: oral- use a combination of residual hearing, a hearing aid, and speech reading in order to comprehend.Manual-finger spelling &sign language.Total-Simultaneous presentation of signs and speech.

- Teaching strategy-maximal auditory.Input through the use of modulation Auditory training units .4 stages of writing: prewriting, drafting, editing and final drafting.

- In educating the Children with motor handicaps emphasis is placed on intellectual development, academic ability, and facilitating total adjustment to limitations.

- These children should be taught self -reliance, initiative, and the ability to make choices. They should learn to plan ahead for mobility and assistance.

- LDs require structure/organization &skill development Detailed schedule &direction. Time to complete task , Reduce confusion., Successful intervention-to interpret environment &understand classroom structure.

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2.6 CHECK YOUR PROGRESS

1.   What are educational provisions for a locomotor impaired child?

2.   What kinds of specific techniques can be used to teach LD children most effectively?

3.   What are some of the curricular concerns for teaching ADD/ADHD?

4.   What are the various instructional techniques used for helping the retarded children?

5.   What are the various educational measures used for helping the retarded child?

6.   What is an IEP? What are the various components of the IEP?

2.7 ASSIGNMENT / ACTIVITY

1) Interview a classroom teacher. Ask what special methods he / she uses to meet the special needs of exceptional students.

2) Obtain a copy of an IEP. Identify the area of deficit and recommend learning content, generalizing and solving novel problems.

3) Find at least three articles that describe specific teaching activities you could use while teaching the ADD/ADHD children.

4) Consider yourself to be a teacher of the mentally retarded student and specify activities that you would use to develop skills and enhance learning.

5) Volunteer to work with people with sensory disabilities. Participate for at least two hours on five different occasions. Describe how you would provide assistance in the various settings.

6) To help understand how people would sensory disabilities experience the world, try having some of these activities given below and note your Blindfold yourself and get ready to go to college: Blindfold yourself-and move in the classroom you are going to teach, converse with A friend using gestures, give at least ten tips for teachers of students with visual impairment.

7) Imagine that you are a teacher of physically disabled students. What decisions would you make to help the students be more successful? What specific activities would you use to modify a lesson you have to teach in language and geography?

2.8 POINTS FOR DISCUSSION/CLARIFICATION

After going through the unit you may like to have further discussion on some points and clarification on other. Note down those points.

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2.8.1 Points for discussion

2.8.2 Points for clarification

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UNIT – 3: INSTRUCTIONAL APPROACHES

STRUCTURE

1   Introduction

2   Objectives

3   Definitions

4   Summary

5   Revision

6   Assignment/Activity

7   Points For Discussion And Clarification

8   References / Further Readings

1.1 INTRODUCTION

The advent of the new millenium shows a phenomenal increase in the concern for children with special needs. Since   education has been universally accepted as. fundamental right, the learning needs of children with special needs, deserve a serious rethinking and analysis. It calls for expansion in the service delivery system to enable the special learners to access education.   This chapter highlights the specific requirements of certain conditions of exceptionality and its ensuing curricular needs to help children develop optimally cognitively and socially.   It is a response to the emerging broader perspectives of the child with special needs, where the total developmental status of the child is being revived for appropriate and timely intervention.

Effective teaching is not a set of generic practices, but instead is a set of context-driven decisions about teaching. Effective teachers do not use the same set of practices for every lesson . . . Instead, what effective teachers do is constantly reflect about their work, observe whether students are learning or not, and, then adjust their practice accordingly

Models represent the broadest level of instructional practices and present a philosophical orientation to instruction. Models are used to select and to structure teaching strategies, methods, skills, and student activities for a particular instructional

emphasis. Instructional models are related to theories about how we learn. Some examples include: behaviorism, cognitivism, constructivism, and connectivism. Various learning theories fit within these general categories, i.e., adult learning theory, transformative learning, social interaction, motivation theory, etc.

Instructional Strategies

Within each model several strategies can be used. Strategies determine the approach a teacher may take to achieve learning objectives. Strategies can be classed as direct, indirect, interactive, experiential, or independent.

- The **direct instruction** strategy is highly teacher-directed and is among the most commonly used. This strategy includes methods such as lecture, didactic questioning, explicit teaching, practice and drill, and demonstrations. The direct instruction strategy is effective for providing information or developing step-by-step skills. This strategy also works well for introducing other teaching methods, or actively involving students in knowledge construction.

- Inquiry, induction, problem solving, decision making, and discovery are terms that are sometimes used interchangeably to describe **indirect instruction.** In contrast to the direct instruction strategy, indirect instruction is mainly student-centred, although the two strategies can complement each other. Examples of indirect instruction methods include reflective discussion, concept formation, concept attainment, cloze procedure, problem solving, and guided inquiry.

- **Interactive instruction** relies heavily on discussion and sharing among participants. The interactive instruction strategy allows for a range of groupings and interactive methods. These may include total class discussions, small group discussions or projects, or student pairs or triads working on assignments together.

- **Experiential learning** is inductive, learner centred, and activity oriented. The emphasis in experiential learning is on the process of learning and not on the product. Personalized reflection about an experience and the formulation of plans to apply learnings to other contexts are critical factors in effective experiential learning. Experiential learning greatly increases understanding and retention in comparison to methods that solely involve listening, reading, or even viewing (McNeil & Wiles, 1990). Students are usually more motivated when they actively participate and teach one another by describing what they are doing.

- **Independent study** refers to the range of instructional methods which are purposefully provided to foster the development of individual student initiative, self-reliance, and self-improvement. Independent study can also include learning in partnership with another individual or as part of a small group. It is

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important that the instructor make sure that learners have the necessary skills in order to accomplish the task. Independent study is very flexible. It can be used as the major instructional strategy with the whole class, in combination with other strategies, or it can be used with one or more individuals while another strategy is used with the rest of the class.

In addition, effective instructors acknowledge the differences among learners. For example, instructors have recognized that adults bring rich and divergent life experiences, are immersed in various life roles, have preferred learning styles, seek learning experiences that are relevant to their goals, and want practical solutions to problems and issues (Knowles, 1980; Caffarella, 2002). With the advent of "global classrooms" and the recognition that race, gender, class and culture do make a difference, responding to learner differences has become even more challenging.

The information provided here is intended to guide you to a better understanding of how to successfully teach students of different ages. The goal is to provide you with information that you can use to understand the outlook and context within which people of different generations approach learning, so that you can be more creative and successful in your own teaching.

Keep in mind that every individual is different. That does not, however, mean that it is impossible for people with certain shared cultural experiences to develop similar sets of behaviors and outlooks. As much as we are individuals, we also share much in common with our peers. Thus, if we assert that baby boomers are avid learners, it does not mean that every baby boomer is an avid learner. We all know individuals who are baby boomers and who are not at all interested in pursuing additional learning opportunities.

It means that, statistically, baby boomers are more likely to engage in learning activities than their predecessors, and/or that more baby boomers are likely to pursue independent learning interests than other groups, or that a significant number of adults in this category say that learning and education are important to them, etc.

Likewise, if we say that Millenials are more likely to have good manners than Gen Xers, it does not mean that all Millenials are polite or that all Gen Xers are rude. It simply means that certain behaviors are more typical of each group than of others. I

raise this point because I do not wish any of you to become frustrated when we must, for the purposes of discussion, make certain broad characterizations. This is unavoidable, and I encourage you to remember that our broad statements are based on behaviors that have been analyzed and measured for statistically significant presence among population groups.

To fully understand the implications of societal change upon generations and upon learning preferences, it is necessary to consider a wide array of forces that impinge upon people's lives, and how these forces change with time. In order to understand these better, we will explore a variety of cultural phenomena including social, economic, demographic, technological, and scientific, as well as educational - for it is the collective influence of all these societal forces that results in the changes across generations that are the focus of this book.

Instructional Methods

Methods are used by teachers to create learning environments and to specify the nature of the activity in which the teacher and learner will be involved during the lesson. While particular methods are often associated with certain strategies, some methods may be found within a variety of strategies.

Instructional Approaches: A Framework for Professional Practice is one in the series of documents developed to

support the Core Curriculum. Its purpose is to:

☐ affirm the integral position of instruction in meeting the objectives of Core Curriculum; provide

support for teachers in extending their range of instructional practices;

☐ provide support for teachers in meeting the challenges associated with major curriculum change; and,

☐ provide curriculum writers with a design for integration of curriculum and instruction.

Instructional Approaches: A Framework for Professional Practice, while intended to be a useful and practical

document, is neither a comprehensive study of instructional practice, nor a "how-to-do-it" guide. Rather, this

document is intended to be of assistance to educators by:

☐ generating discussion among teachers about instructional approaches; promoting reflective thinking

among teachers about instructional decisions;

☐ affirming the art, as well as the science, of teaching; and,

☐ acting as a catalyst for further professional development.

1.2 OBJECTIVES

Students will be able to :

- Understand specific needs of children with LD (ADD & ADHD), Visual Impairment, Hearing Impairment, Mental Retardation and Orthopedic Handicaps.

- Create curriculum for developing attention, perception, motor ability for specific groups of children.

- Develop alternative curricula to develop language skills in those with sensory handicap.

- Design appropriate curricula to develop skills in reading, writing and arithmetic for specific disabling conditions.

1.3 VISUALLY IMPAIRMENT

Educational Implications

Lack of sight can severely limit a persons experiences because the primary means for obtaining information from the environment is not available. Educational experiences in the classroom are frequently visual. Most expert agree that we should educate visually impaired students in the same general way as sighted children. Teachers need to make some modifications. They may need extra assistance from resource teachers and other specialists particularly in the area of basic skills. Students whose functional use of vision is extremely limited require specialized instruction on additional topics such as orientation and mobility. Through training in concentration and attention the blind individuals learn to make fine discriminations in the sensations they obtain. This is not automatic but the result of sustained and intensive sensory training programme with favourable learning experiences and a good attitude the people with V.I. can be developed into independent and strong healthy personalities. However for this to be achieved training has to begin as soon as visual impairment in a person is identified. Pre-School training therefore is an important aspect of the training of the people with

V.I.   This text is therefore divided into two parts - education of the (1) Pre-School Children, (2) School Aged Children.

For those with visual impairment, pre-school education is vital.

Education of the Pre – School Child

Pre-school programs are very important for individuals with severe visual impairment. These programs help infants and their families from the onset of their visual loss. Those who are congenitally blind or adventitiously visually handicapped at a very young age have little or no memory of how the world looks. Most infants who are blind experience a period of prolonged period of inactivity during their first year of life which inhibits their exploration and discovery of the environment. Babies develop inappropriate behaviours (blindms) and other social problems as a result because of insufficient interpersonal interactions early in life. It is important to assist babies with visual impairment –

1.   To develop relationships, particularly during the first and second yrs of life, they may need to be taught how to smile and how to respond to other auditory inputs. These are skills that parents can teach their children with the help of early childhood specialists. Infants and toddlers with visual impairment do, however, act like sighted babies in other ways.

2.   With some extra guidance family members can develop their vocabulary using other senses.

3.   Infants with visual impairment need more stimulation than their non-handicapped peers through touch, orientation, mobility, locomotion orientation in space. This fosters mental stimulation and develops the readiness to learn.

4.   The development of good listening skills needs to begin early and the first is sound localization. These goals are only part of a program for pre-schoolers with visual impairment. The involvement of parents is critical parents need to learn the effects of visual impairment, the importance of early stimulation, and strategies to cope with their baby.

5.   Professionals and Parents need to help their infants become more mobile and independent through their direct efforts by teaching them to crawl and walk in a structured program (Joffee 1988). Overprotection fosters dependency and makes it difficult for adults and children with visual impairement to participate fully in society. Most infants and young children learn by imitation. Imitation is restricted for the visually handicapped.

6.   Adults need to supplement what the infant touches with a verbal description of the activity or object. Naming concrete objects and describing their physical characteristics helps develop concepts, vocabulary, and improves language development. It is important for pre-schoolers to receive the most intensive

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education experiences as far as possible. To provide fullest attention to the child the teacher of the pre-schooler who is Visually Impaired should coordinate a team of specialists to work with the child and the family (opthamologist, occuptional therapist, physio therapist, orientation and mobility instructor and social worker).

Education of the School Aged Child

The educational need of students with partial visual impairment differ from those of students who are blind. Students with low vision might require some extra tutorial assistance to learn or additional time. Students who are blind might require the inclusion of entirely different type of curriculum topics (eg. Lifeskills).

Some minor modifications in teaching style can help students with visual impairment gain more from the learning environment. One such modification is the careful use of oral language. To assist students gain more information the teachers can use both written and oral forms of communication more precisely. The following suggestions can be incorporated into classroom situations –

1. Repeat orally the information written on an OHP.

2. Use an OHP to display and enlarge information being presented.

3. Prepare handouts using large prints that summarize the important information presented in lectures.

4. Address students by their names first to get their attention.

5. Audiotape lectures so that students can use tapes as study aids at home.

Teachers should not lower their expectation for students with disabilities. Visual Impairment students need to be encouraged to be full class members who share their thoughts and work with others.

Familiarizing visual impairment students with topics to be covered during the term in advance helps. Advance Organizers also help (Deshier et al 1983; Lenz, Alley, Schumaker 1987).

Teachers can obtain good results by following simple procedures like handing out a weekly schedule to assist students in planning their time and study schedule and also briefing them to adjust to changes in the environment like a new building coming up in the school or preparing for a surprise party for a peer etc.

Modifications in the classroom can help students who are blind like use of Optical Aids, Magnifiers tape recorders that facilitate their learning.

Some use brailling equipment, others use portable microcomputers. They may need a larger desk etc. Commonsense accommodations can be benefiticial to the students learning.

Many students with visual impairment benefit from regular education classrooms (taught same content and interact socially) However, many students need intensive education in addition to instruction they receive in the regular classroom.

Teachers need to keep the following points in mind while educating children with V.I.

1. Place the child's desk close to the teachers desk, the black board and classroom door.

2. To reduce the distracting glare, arrange the child's desk away from light source, but in a well lighted area.

3. Allow students to move closer to the chalkboard to enhance opportunities to see and hear.

4. Free the classroom from dangerous obstacles.

5. Open or close doors fully.

6. Eliminate as much unnecessary noise from the learning environment as possible.

7. Do not speak too loudly (it increases volume level in the class; including background noise).

8. Consider the individuals handicap but don't let it be an excuse for poor or unacceptable performance.

9. Always place materials in same places so that students know where items are located.

10. Do not leave the room without telling the student.

11. Seek assistance of a specialist in the area of visual impairment.

12. Have high expectations.

1.4 HEARING IMPAIRMENT

Educational Implications

Hearing impairment is a great barrier to the normal development of language. This child is a t a distinct disadvantage in virtually all aspects of language development. Language being a very powerful tool of learning its importance in academic achievement cannot be undermined. A significant number of educators of the deaf individuals behave that many of the problems of the hearing impaired people related to social and intellectual development are primarily due to their deficiencies in language. Therefore, to help hearing impaired individual develop optimally in all aspects of learning i.e. social, emotional and cognitive, it is imperative that early intervention begins much before the child enters a formal school. Since the intervention must begin with the identification of the hearing impaired child, the corresponding text is divided into two parts the education of the Pre-School Child and the education of the School Aged Child.

Education of the Pre – School Child

Pre – school programs are important for children with hearing impairments especially for those with severe and profound hearing losses. Equally important are programs for families of these children. Parents need to know how to help their child acquire language and communication skills, as well as a positive self-concept. They are primarily responsible for the child's integration into the family, neighborhood, school and community. The training, that families require can best come from professionals at an infant or pre-school program. They can help parents cope with a range of issues from understanding the social and language development of their child to the proper care and fitting of hearing – aids.

Young children, particularly those who are deaf, and their families, need intensive educational efforts during infancy and pre-school years (Appell 1982). Many families choose to learn some form of sign language or manual communication system, so that they can communicate more fully with their child. Some professionals propose that both infants and their families be taught sign language (SL), and the manual system and try to develop language "naturally".

Today, even infants can wear hearing aids and learning to take care of such equipment is an important part of their growth process. The need to use sophisticated equipment and incorporate it into their daily living need to begin early in life.

What should a good pre-school program have ?

The early intervention curriculum should be comprehensive and have 3 main foci

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a)   the total development of the child within the context of his family i.e. physical, mental, social emotional and cognitive.

b)   parental knowledge of normal child development and their child' hearing abilities.

c)   support and skills to assist the child's assimilation into the family system (Bodner – Johnson 1987).

These programs are most effective when an audiologist, an educator, and often a person who is deaf is included.

1.   Children who do not get used to hearing aids early in life learn to "tune out" sounds. So, hearing aids should be introduced as early as possible.

2.   Training with prerecorded environmental sounds with their corresponding pictures.

3.   Everyday speech and high frequency words to be taught in the natural environment i.e. amidst naturally occurring noises and sounds.

Speech Reading

Speech reading involves using visual information to understand what is being said. There are 3 kinds of visual information (Sunders 1982).

1.   Stimuli from the environment i.e. the context-sound coming from the kitchen or hall.

2.   Stimuli associated with the message but not part of the speech e.g. action of stirring milk with the words used.

3.   Stimuli directly connected with the production of speech e.g. relevant lip and tongue movements.

Total Communication

1.   A number of research studies have found that deaf children of deaf parents who had been exposed to manual methods, which compared to deaf children of hearing parents who had not been so exposed, were superior in language skills, academic achievement, reading, writing and social maturity.

2.   Oral and manual language should be taught at the pre-school level.

The problems facing the educators of children with hearing impairments are formidable. One major problem is communication.
Programs with oral emphasis view speech as essential for the deaf persons integration into his 'hearing world'. Much emphasis is given to amplification, auditory training, speech reading and above all talking Oral Techniques.

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a) **Auditory Training** – is a procedure of teaching the deaf or hard of hearing child to make use of what hearing he possesses. The benefits of auditory training have been augmented by rapid technological advances in the development of hearing aids.

b) **Speech – reading** – sometimes inappropriately called lipreading – involves teaching hearing impaired children to use visual information to understand what is being said to them. Other visual stimuli can help the hearing impaired person to understand spoken messages.

Auditory Training involves 3 major goals –

1. Development of awareness of sound.

2. Development of the ability to make gross discriminations among environmental sound e.g. telephone ring and bicycle ring.

3. Development of the ability to discriminate among speech sounds e.g. sound B, K etc.

Total communication (T.C) using a variety of methods to assist the deaf child in expression and language development. Speech to be supplemented by one or more manual communication techniques, and meaningful communication to be encouraged between teacher and students and among students.

Sign language i.e. using gestures to represent words and concepts. The shape, position, and movement of hands, the facial expression and the intensity with which the motions are made all communicate meaning in sign language. (SL).

Finger Spelling to be used in conjunction with other methods of communication. Uses of sign language and finger spelling particularly to spell out proper names for which no sign exists and to clarify meaning which is not clear.

Cued Speech is a method for supplementing speech reading by using hand signals. 8 Hand Shapes (cues) are used in 4 different positions near the lips the hand serves to identify sounds that cannot be distinguished by speech reading alone. The cues are neither signs nor finger spelling.

Thus, T.C. encourages the deaf child to develop expressive and receptive language by using several channels of communication simultaneously. Teachers and students practicing T.C. generally express themselves by speaking and signing and understand others their' speech reading, auditory training and finger spelling. T.C. provides a reliable, receptive, expressive symbol system in the pre-school years (Denton 1972).

In short, every hearing impaired child should have access to a good program of communication that will be appropriate to his or her own uniquie abilities and needs.

Education of the School Age Child

The educational needs of two groups of students with hearing impairment are very different from each other. The challenges that hard of hearing students face are different from those of students who have substantial hearing losses. Differences exist in the way they are taught, what they are taught, and for some of these student, where they are taught. Therefore, a classification of students with mild to moderate hearing losses and students with severe to profound hearing losses needs to be made.

a)   Children with Mild to Moderate Hearing Loss : Mainstreaming seems to work well for students with mild to moderate hearing loss. Most students with hearing impairment can hear satisfactorily with amplification (i.e. hearing aid) and therefore can attend school and function well with their non-handicapped peers. Children with mild to moderate hearing impairment need to be taught well with information presented orally and a combination of textbooks, lectures and class – discussions.

Along with educational benefits, students with hearing impairment need to acquire social skills in a regular classroom. All children learn to interact positively. Teachers need to encourage support and create opportunities for such interactions to occur. Using tactics like the puzzle technique result in better understanding of the content assigned. Sharing, discussing, and modeling for each other the steps students follow to clarify comprehend and arrive at the correct solutions help student comprehend matter conceptually.

With certain modifications, students with hearing impairment can benefit from regular classes. There are a number of simple techniques and procedures like attending the lip movements, using cued speech help students with mild to moderate hearing impairment to profit more in oral communication situations (Burrow 1983, Kampfe 1984, Teitelbaum 1981, Yater 1977).

b)   Children with Profound Hearing Losses : Three different approaches are used to teach students who are deaf –

   - Speech only (oral communication).

   - Sign only (manual communication)

   - Speech and sign together (total communication)

With the oral approach, children must be taught to use as much of the residual hearing as possible (Ling 1984 b). Learn about amplification, how to speech read (lip read) and how to speak. For the basic oral approach believe that indurduals who are deaf must live and work in a world where most people hear normally and communicate through their oral expression. In doing so, the hearing impaired can become part of mainstream society.

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However, oral approach programs have problems (ling 1984 a) Some children can benefit but not all "for some children with severe and profound sensorineural hearing losses, the attainment of intelligible speeches are an unreachable goal" . Even those who attain intelligible speech the process is arduous, slow and different.

The second education approach is manual communication Sign Language (SL) which is structured and formal, with its own linguistic rules and patterns is one cudely-used form of manual communication SL is not used by most teachers in elementary and secondary school settings. Only 3% of teachers for the deaf use ASL in their classes. A study (Woodward 1988) found that 35% of the students with hearing impairments use oral communication in their classes. Differences in the use of oral communication related to the individuals degree of hearing loss. (11% with profound losses, 78% with less than severe losses). Oral communication is used depending on degree of hearing loss often finger spelling (FS) a form which closely matches the grammatical form and language and structure of standard English. In F.S. each alphabet has a sign. Words are spelled out.

Liddell and Erting (1989) advocate the use of SL at home and at school for children with severe hearing impairments.

1.5 MENTAL RETARDATION

Educational Implications

The training programme for the Mentally Retarded individuals converges around the development of adaptive behaviours ranging from self help skills to the development of vocational skills. Although there is some overlap, in general the focus of the educational programme varies according to the degree of retardation and the category the person belongs to. The lesser the degree of retardation the more is the emphasis on academic skills, and the greater the degree of retardation the more stress there is on the development of self help, and community living skills.

Basic to any training programme for the people with mental retardation, is the knowledge and skill regarding the 1) development of an Individualized Educational Programme (IEP). An IEP is training programme developed for each child. It is based on the assessment of the person with Mental Retardation in areas like Academics, ADL, Social skills, Personal skills, Vocational skills and Community skills and a plan for training is developed with objectives, strengths, weakness. In functional Academics, academics is taught to the student to function independently in his society eg. In functional reading the Mentally Retarded person is taught to read labels in grocery shops, names of stations, bus numbers, particular item's in news paper like TV programmes, access the telephone directory to get certain phone numbers etc. functional writing would entail writing one's name, address, telephone number, hand rudimentary banking eg. filling in deposit slips etc. Functional math would teach him enough number work to make small purchases, handle change, travel independently

etc. 2) Task Analysis (TA) : Task Analysis is breaking down a task into its component steps / skills. It help in training people with retardation.

Classification according to AAMR

Given in this text is the classification of the people with Mental Retardation according to the AAMR with the corresponding curricular emphasis. Domains like Personal Social Skills and Career Education have been broken down into their sub-components for making the training process more learner friendly.

a)   Mild MR – IQ range – 55 to 70. It is difficult to find out mild MR children among their peers. In the majority of such cases, we are unable to specify the exact cause of retardation. Programmes for these children focus on academic skills and vocational training. The educational experiences of these learners have been divided into 4 classes :-

- Pre – school classes (3-6 yrs)

- Primary 6 – 10 yrs – reading, writing, with, social training (sharing, peer helping etc.).

- Intermediate classes – 9 – 13 yrs – Along with academic skills this group also needs pre-vocational training and training in independent living skills to live independently in society.

- Secondary school level – above 13 yrs. All vocational and social skills, interacting with people at work place and other settings.

b)   Moderate MR – IQ range 35-40 to 50-55. The education of these children generally focuses on the development of self help as well as adequate communication and social skills to allow for semi- independent living. Education of these individuals is divided into 6 areas.

- Self help skills (ADL)

- Communication skills (get message across)

-   Personal social skills (getting along with others)

-   Perceptual motor skills (visual, auditory and tactile perception skills).

-   Functional academic skills (reading, writing, arithmetic)

- Vocational skills (help in work area).

c)   Severe MR IQ range 20 – 25 to 35 –40 educational efforts usually focus on basic communication and self help skills.

d) Profound MR – IQ range – below 25

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The emphasis for the above 2 is on daily living skills in the areas of physical development self-care, language, training (including training in non-speech systems) and social behaviors. Behaviours such as rocking, self – abusive behavior, head banging etc. are to be eliminated with help of behaviour modification techniques.

A sample of the curricular content for these children is presented here for clarification.

Socio Personal Skills

- Positive self – image
  - ➢ Record the student's voices on tape and play them back
  - ➢ Work in groups or with a partner
  - ➢ Verbalize positive experiences

- Interpersonal Relationships
  - ➢ Greeting
  - ➢ Polite Requests
  - ➢ Goodness of voice
  - ➢ Eye contact
  - ➢ Interpersonal distance
  - ➢ Co-operative work

- Sex Education
  - ➢ Awareness of self (sexual identification and body parts) 6-10 yrs
  - ➢ Understanding maturity and puberty 10-12 yrs
  - ➢ Interpersonal relations (sex roles, peer pressure, girlfriends, boyfriends) 12-16 yrs.
  - ➢ Sexual responsibilities and relationships (pregnancy, birth)
  - ➢ Sex and Marriage

- Clothing : (Adaptive)
  Pants with side zipper or Velcro
  Pants with loops
  Short wheel chair coat
  Loose t-shirts
  Prettied neckwear
  Pull on devices for under pants and socks

Toileting :
  Training in using
  - ➢ Low toilet seats

- ➢ Cushioned toilet seats
- ➢ Spray pipes for cleaning
- ➢ Automatic water spray
- ➢ Keep self clean
- ➢ Seek help with toileting needs
- Eating :
  - ➢ Good table manners
  - ➢ Waiting in turn
  - ➢ Eating without spilling

Career Education : Skills

- Personal Care and Skills
  - ➢ Dressing and Personal hygiene
  - ➢ Toileting
  - ➢ Eating and food habits
- Personal Skills
  - ➢ Positive self – image
  - ➢ Interpersonal Relationships
  - ➢ Stress Management
- Functional Academics
  - ➢ Reading
  - ➢ Writing
  - ➢ Arithmetic
- Communication :

  Communicating needs

  Express ideas and opinions
- Job Related Skills :
  - ➢ Punctuality
  - ➢ Attendance
  - ➢ Task Completion - Attending to task and completing work on time.

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- Work Attitude :
  - ➢ Self – dependence
  - ➢ Value of work
  - ➢ Emotional Independence
- Communication

  Communicating needs, feelings

  Expressing ideas and opinions

IEP : Example (I)

Individual Educational Program is developed in the basis of the child's assessment. It contains his strengths, weaknesses, the objectives and evaluation procedures.

Male child

Age – 12 yrs.

IQ – 52

1. ADL

Child Age 12 yrs IQ 52

Sr. No.	Present Level of Performance	Annual Goal	Short Term Objective	Evaluation
1.	Cuts vegetables makes tea, kneads dough.	The student will be able to plan and cook nutritionally balanced meals.	Outcome : Student will plan and cook break fast, lunch, and dinner for five consecutive days. Will also purchase the necessary groceries.	Will independently cook two items for break fast, three items for lunch and two items for dinner for three people.
2.	Can thread the needle and do tacking.	The students will be able to mend clothing and sew on buttons.	Will choose matching colour to sew and do hemming and backstitch.	Student will mend tears and seams in pants, and shirts.

Example (II)

Functional Reading :

Diagnosis – MR

Child "A" Age 9 yrs IQ 70

Sr. No.	Present Level of Performance	Annual Goal Statements	Short-Term Objective	Evaluation procedure
	Strengths :			
1.	Can sound out consonant-vowel-consonant words.	Student will correctly read out loud all consonants imbedded in the words from a 2nd grade passage.	*Outcome* : Consonant blends (pl, sm, er, fr, tr, gr, pr, bl, sl, st, sw, el, dr, br, sp) *Context* : When presented in a word (pronounce whole word) Criteria : 50 words 90% - 100%	50 nonsense words with initial consonant blends. Teacher reads ending, student supplies banging sound. Probe sheet-20 words w/initial consonant blends.

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Teaching Reading and Comprehension

The following are suggestions for methods and activities that may be helpful in teaching reading comprehension :

1. Understanding basic vocabulary is an important initial step in improving comprehension skills. Helping students develop branching trees by clustering words according to association is one technique to improve word comprehension. For example the word "ball" can be associated with "catch" and "throw." As students begin to learn words in clusters, these words become cues for other associated words.

2. It is important to teach learners vocabulary words that lend meaning to a paragraph by describing when things occur. Initially teachers should present words such as "to begin with next, after that and finally", helping the students to follow the organization of the story.

3. The ability of students to identify key words and main ideas in a sentence or paragraph is an important skill. Color coding words or underlining main ideas can help direct the student's attention to relevant stimuli.

4. After students read stories, teachers can provide them with phrases that describe what the story was about. After a number of trials, teachers can provide multiple phrases, requiring the students to choose the one that best fits the story.

1.6 ORTHOPEDIC DISABILITIES

Educational Implications

So long as children have a normal intelligence and the orthopedic implications are minor that can easily be taken care in the regular class, they can be integrated in the mainstream with no curricular adaptations whatsoever e.g. the children with polio. However not al orthopedic conditions are like this. When the disability demands specific type of interventions for giving the children a normal or near normal life, certain curricular adaptations have to be developed.

For Children with CP the Specific Curricular needs are as follows

A. Academic Areas

Perceptual – Motor Activities

Activities for

a) Visual Memory e.g. with close eyes name three things you saw in box, or reproducing block designs etc.

b) Visual Discrimination e.g. find the small cup or find the odd one out.

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c) Visual figure – ground (selective attention) e.g. from the picture of the circus show me all the tigers, those in blue shirts etc.

d) Visual – motor integration e.g. picking up small objects, coloring, joining dots etc.

e) Visual Spatial – eg. show me the boy is 'up' far, besides, left, right etc.

2. a) Auditory Memory eg. reciting poems/sings learning language etc.

b) Auditory Discrimination – listening to instructions and following them eg. give me the red plate not the blue one – or which word does not rhyme with cut,: hut mat rut.

c) Auditory figure ground – amidst a noisy environment listening to a story and answer question on it.

3. Mobility training i.e. use and care of crutches, calipers, and such other mobility aids.

4. Communication – those unable to use regular language have to use alternative mode of communication like Blissymbolics, the Makaton etc. Yarning and therapy in Speech too would help those with articulation and voice defects.

5. Development of self reliance and confidence through work experiences must be an integral past of the curriculum.

6. Use of writing devices for those with fine motor problems and the use of Computer Assisted Devices (CAD) is strongly recommended.

7. Development of Social Skills – by simulations and first hand experiences are necessary.

For those with Spine Deformities

1. Sensory Training – to handle the loss of sense of touch.

2. Toilet Training

a) training in "emptying" the bladder and "bowel" by applying pressure at certain points, periodically.

b) Related hygiene

c) Use and disposing of pads during menstruation at regular intervals.

3. Development of the environmental awareness.

B. Non – Academic Areas

1. Training in motor – coordination by physic-therapists to enable the child to develop gross motor skills to walk, run etc. or use the mobility aid/devise.

2. Training in ADL activities by occupational therapists e.g. brushing, dressing, bathing, eating etc.

3. Speech therapy when organs of speech are involved to help in voice training, articulation etc.

4. Training in chewing food, swallowing of food.

5. Sensory training for a sterognosis is common among those with upper limbs involvement (i.e. Poor memory of shape and texture of objects).

i.7 OTHER DISABILITIES :

Learning Disabilities (Ld) , Attention Deficit Disorder (Add), Attention Deficit Hyperactivity Disorder (Adhd)

Educational Implications

Most students with LD demonstrate some degree of attention deficits, hence the curriculum planning for students with LD, ADD (Attention Deficit Disorder) and ADHD (Attention deficit with Hyperactive Disorder) has been taken together. Paying attention to a task till its completion is very challenging for students with LD, ADD & ADHD. A failure in learning occurs because of inability to sustain attention till task completion. Therefore to help students focus and sustain attention on a task during seat work.:

*   Make sure students have understood the instructions before making them do a task.

*   Give a student only that much work that he can manage without great difficulty.

*   In case he needs the attention of the teacher, give him some work he can do independently and which he likes.

*   Give positive reinforcement every time the child is "on-the task".

*   Use a timer

*   Use quiet corners for seat work.

Study buddies could be used to help the students remain attentive and on task.

Reading Skills in Learning Disability

Reading is a process where by one accesses verbal information through the medium of presented symbols. To read efficiently, therefore one needs a sound understanding of the symbolic nature of the language i.e. its sound system to form words, sentences and paragraphs. Problems in reading arise because of a poor perceptual maturity or poor language skills. The following is suggested to deal with such problems –

1. Providing learners with an outline of the subject matter they are about to read. This helps them anticipate what to look for in their reading. Special educators can develop these outlines by asking the teachers what topics in the readings are considered most important. Partially completed outlines can be provided for students to complete. This technique also helps students discriminate the important points in reading.

2. Teaching students key vocabulary in content area lessons can assist them in comprehending class lectures and scanning more difficult reading materials. These words can be taught using sight word techniques such as pairing the word with a corresponding picture.

3. Having peers tape-record chapters, can provide learners with another modality for covering the assignments. Peer tutors can also assist mildly retarded learners in studying for tests or completing assignments.

4. Teaching good study and note taking skills can be a great help to mainstreamed learners. Criscoe and Gee (1984) have suggested teaching the "survey, question, read, recite, review" approach. Basically, students are taught to survey the material briefly, locating the main points. They then convert the main points to questions that may help to increase their comprehension. At that point, they read until they can answer each question, recite the answers, and finally review after all questions have been answered.

5. Memory aids are an important set of skills for weak learners. Criscoe and Gee (1984) have suggested some aids such as (1) poetic devices – "thirty days hath September"; (2) linking techniques-linking words to form a mental image; and (3) location techniques-visually "walking through" the exercise.

6. Many learning disability students may not perform well on content based tests because of their deficits in reading (Bruno & Newman, 1985). Special educators could assist regular education teachers in developing alternate projects that assess student's knowledge, yet do not rely solely on reading ability.

Writing Skills

Those children with reading problems also have problems in writing. These could be because of poor visuo motor integration, poor language skills, or poor memory for spelling correctly. Suggested here are activities that foster writing skills, note taking, and in some instances creative writing to help these learners become more independent.

1. The microcomputer can be a tremendous help to LD children practicing written expression. Word processing packages (e.g. BANK STREET WRITER from Broderblind Software, Inc.) can assist learners who previously have found writing too difficult because of severe deficits in handwriting, spelling, punctuation, and other skills.

2. Providing students with a list of words they can use to form sentences can be a meaningful exercise for those who lack an adequate vocabulary.

3. Providing students with incomplete sentences that they are required to finish by supplying the main idea, can help them to complete their thoughts. The procedure would be to gradually fade the numbers of words provided by the teacher.

4. For students whose experiences are limited, organizing groups to share ideas for a story can be a helpful way to generate content. Teams of students can work together to make up the story.

5. Teaching manuscript writing is easier to master than cursive writing, however, it is less versatile. The best practice may be to match the technique best suited to each student.

6. ᵢaᵧin (1983) has suggested an approach that combines both manuscript and ive writing. Manuscript letters are connected using waves, pearls, wheels, and arrows. Students practice at the chalkboard and on acetate sheets placed over printed models.

7. Commercially produced methods for teaching cursive writing may provide teachers with an effective, structured program (e.g. Barbe, Lucas, Hackney, Braun, & Wasylyk 1984).

8. Reading and spelling are so closely related they should be emphasized together as much as possible. For example, students can identify words in their readings that they have learnt to spell and write.

Math Strategies

Since with some LDs, learning problems encompass all areas of academic learning, math is another area of concern. Problems faced here are because of perceptual or language comprehension deficits, where reading the numbers correctly, writing them

in the correct column performing the right operation and comprehending the problem become difficult. Some suggested. solutions to these problems are -

1. **Allow a choice of paper.** Keep available in class some graph paper that is already 3-hole punched. Require students to show their work and write problems neatly, either: (a) on regular paper with two or three lines of space between problems; (b) on lined notebook paper, thin lined or wide-lined held side ways; or (c) on graph paper.

2. **Reduce the number of problems that you assign.** There is no need to assign every problem on a page to assess your student's understanding or provide practice. Allow students to do few problems required to be written neatly, spaced well, with rough work shown.

3. **Avoid anxiety of timed tests of basic facts.** There are a number of students (ADD and learning disabled) who have extreme difficulty memorizing basic facts. Let them respond orally if writing is difficult.

4. **Color highlight** processing signs for students who are inattentive to change in operational signs on a page.

5. **Color dot** the ones (units) column to remind students where to begin computation.

6. **Use mnemonics** (memory devices) to help with recall of steps. Examples: Steps of long division can be remembered by "dad, mother, sister, brother" or "Dear Miss Sally Brown" (for divide, multiply, subtract, bring-down).

7. Familiarize students with mathematical language eg. Divided equally, ten times more, the sum of etc.

1.8 UNIT SUMMARY

*   The disabled children of different categories have specific needs.

*   Creation of curriculum for developing attention perception, motor ability for specific group of children.

*   Development of attente curricula for development of language skills in those with sensory handicap.

*   Designing appropriate curricula for developing reading, writing and arithmetic skills for specific disabled children.

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1.9 CHECK YOUR PROGRESS

1.   What is curriculum? How to create curriculum for developing attention, perception, motor ability for visual impaired children?

2.   What points would you take into consideration to develop alternate curriculum for the development of language skills in those with sensory handicap.

3.   Design curricula for developing the following skills in disability condition of your choice:

    (a)   Reading skills

    (b)   Arithmetic skills

    (c)   Writing skills

1.10 ASSIGNMENTS

1. Plan a curriculum to develop skills in reading comprehension in 10 yrs. old child with LD (ADHD).

2. Design a curriculum to develop pre-language skills in a 8 yrs. old child with pre-linguial deafness.

3. You have started an early intervention clinic. Plan a curriculum for children with VI, CP, & MR to optimize their development.

1.11 POINTS FOR DISCUSSION AND CLARIFICATION

After going through this Unit you might like to have further discussion on some points and clarification on others

1.11.1 Points for discussion

1.11.2 Points for clarification

1.12 FURTHER READINGS

1. Carol Carter, Joyce Biswhop Keys to Success. How to Achieve your and Sarah Lyman Kravits. (1998) goals. Pub : Prentice Hall N.J. 07458

2.   Krishna Kumar (1986) The child's Language and The Teacher -- A Handbook.

3.   Lyndon W Searfoss Helping Children Learn To Read.
John E. Readence (1994) Pub. Allyn and Bacon MA 02 1944.

4.   NIMH Sewnderabad (1989) Hand Book For The Trainers of the Mentally Retarded Persons. Pub.: NIMH Sewnderabad.

5.   Paul A Albeoto Applied Behaviour Analysis For Teacher
Anne C Troutman (1990) Merrill Pub. Co. ohio 43216.

UNIT – 4: TEACHING METHODS

STRUCTURE

1.1 INTRODUCTION

The advent of the new millenium shows a phenomenal increase in the concern for children with special needs. Since education has been universally accepted as fundamental right, the learning needs of children with special needs, deserve a serious rethinking and analysis. It calls for expansion in the service delivery system to enable the special learners to access education. This chapter highlights the specific requirements of certain conditions of exceptionality and its ensuing curricular needs to help children develop optimally cognitively and socially. It is a response to the emerging broader perspectives of the child with special needs, where the total developmental status of the child is being revived for appropriate and timely intervention.

Legislative mandates such as No Child Left Behind[1] and the Individuals with Disabilities Education Act[2] require that students with disabilities not only be exposed to the general education curriculum, but demonstrate progress in it as well. This includes students with autism spectrum disorders (ASD). The Centers for Disease Control and Prevention estimate that one in 110 children are diagnosed with ASD.[3] As a result, more students with ASD are being included in the general education setting, and teachers are faced with the task of determining strategies that will help students with ASD succeed in the classroom. Although the task may seem daunting to teachers, students with ASD can and do learn.[4] The first critical step in this process is to understand the unique characteristics of ASD.

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Students with Autism Spectrum Disorder do not experience the same emotions and thought processes that we expect of most school age children. If a student is visually impaired, we use braille and a range of special adaptations to enable them to be independent. In the same way we need to adapt the environment of students with Autism Spectrum Disorder to set them up for success.

What does a student with Autism experience?

The nature of Autism is such that during schoolwork, students with Autistic Spectrum Disorder often: • demonstrate poor organisational skills,

• do not feel rewarded by the social interaction surrounding schoolwork,

• need expectations

• have no way of predicting how long an activity will last,

• are unsure where to start and when to finish an activity,

• will often repeat an activity as they are unaware it has ended (hence many autistic repetitive behaviours such as spinning),

• have no way of knowing or anticipating the order in which demands will be made,

• have no anticipation of when they will get to do what they want to do, and

• are uncomfortable with uncertainty and unable to concentrate on work to the best of their ability. We now also know that most students with autism have visual strengths and it is vital to use a range of visual strategies to improve their understanding and positive interactions with learning.

Adults with Autism Spectrum Disorder have given us a great understanding of the extent of their visual strengths and confusion with the spoken word. Temple Grandin (an adult with autism who has written a number of books about her experiences) said, "I used to think adults spoke a different language. I think in pictures. Words are like a second language to me."

The nature of Autism is such that transition can be extremely stressful. Changes big and small can trigger confusion, anxiety and problems. A new teacher, new classmates and a new classroom can be particularly stressful. If the student is keeping the same teacher or teacher's aide this is one less change, however for some students it is the change of students or classroom that creates the confusion. Any of the following changes in a typical school year can create huge anxiety: changes in timetable,

different playground, new school books or pencil case, new classroom rules, new arrangement of objects, new teachers (e.g. specialist teachers), new school administration (e.g. Principal), new students in class and/or new play areas.

Successful Strategies

• Use visual timetables and visual cues to indicate changes.

• Schools should send home the timetable as soon as possible. Then the parents can discuss changes and the student can learn the timetable.

• Use photographs for example, new teachers, students in class or playground.

• Ensure the student has strategies to stay calm. This may include a quiet area, walkman with calming music and favourite book or activity.

• If the student has difficulty finding their way from one class to another, allocate a 'Hall Buddy' who helps the student find the next class.

• Allocate a place where the student can go if they get lost or to get help (e.g. Front desk, School Library, Special Education Teachers' classroom). Choose a place that is easy to find and always has an adult to quickly help the student before they become anxious. Ensure the staff in this area know the student and can help. It is a good idea to have a folder with the student's timetables, information and strategies at this place to help ensure the student can be assisted quickly. Practise with the student going to this area when they are calm.

• If the student has difficulty with organisation, put strategies in place to help such as for each class have the required materials in separate bags in their locker (e.g. in the Art bag have a smock, pencil case, map to find classroom etc).

• The playground can be a very frightening place for a student with Autism Spectrum Disorder. Allocate an area in the playground for the student to play that will be within eyesight of teachers and has activities the student will enjoy. Other strategies include getting them to use the library at lunch times or joining clubs.

• Ensure communication is established with parents for example via a journal.

Organise visits now

This is vital for new teacher and student. Organise visits to the new teacher/ classroom during the last month of school. Make sure the student has pre- warning and visuals are a great way to do this. At first you may just send them to the teacher to 'share a success' or 'show a special interest'. Make it VERY positive. Where possible keep the

first visits brief so the student doesn't get too overwhelmed. If you have a Principal who doesn't know who the teachers will be, explain the EXTREME importance for this student! Difficulty with change is part of this student's disability. It is VITAL and just as important as glasses to other students to make reading more successful. A student with Autism Spectrum Disorder needs transition and so does the teacher. Many teachers have never experienced students with Autism Spectrum Disorder. Knowing they are having a student as early as possible allows them to talk to other staff, professionals, attend workshops BEFORE they have the student in their class. If possible send the new teacher to OBSERVE in the current classroom for a day!!

1. Use Task Analysis –very specific, tasks in sequential order.

2. Always keep your language simple and concrete Get your point across in as few words as possible. Typically, it's far more effective to say "Pens down, close your journal and line up to go outside" than "It looks so nice outside. Let's do our science lesson now. As soon as you've finished your writing, close your books and line up at the door. We're going to study plants outdoors today".

3. Teach specific social rules/skills, such as turn-taking and social distance.

4. Give fewer choices. If a child is asked to pick a color, say red, only give him two to three choices to pick from. The more choices, the more confused an autistic child will become.

5. If you ask a question or give an instruction and are greeted with a blank stare, reword your sentence. Asking a student what you just said helps clarify that you've been understood.

6. Avoid using sarcasm. If a student accidentally knocks all your papers on the floor and you say "Great!" you will be taken literally and this action might be repeated on a regular basis.

7. Avoid using idioms. "Put your thinking caps on", "Open your ears" and "Zipper your lips" will leave a student completely mystified and wondering how to do that.

8. Give very clear choices and try not to leave choices open ended. You're bound to get a better result by asking "Do you want to read or draw?" than by asking "What do you want to do now?"

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9. Repeat instructions and checking understanding. Using short sentences to ensure clarity of instructions.

10. Providing a very clear structure and a set daily routine including time for play).

11. Teaching what "finished" means and helping the student to identify when something has finished and something different has started. Take a photo of what you want the finished product to look like and show the student. If you want the room cleaned up, take a picture of how you want it to look some time when it is clean. The students can use this for a reference.

12. Providing warning of any impending change of routine, or switch of activity.

13. Addressing the pupil individually at all times (for example, the pupil may not realize that an instruction given to the whole class also includes him/her. Calling the pupil's name and saying "I need you to listen to this as this is something for you to do" can sometimes work; other times the pupil will need to be addressed individually).

14. Using various means of presentation – visual, physical guidance, peer modeling, etc.

15. Recognizing that some change in manner or behavior may reflect anxiety (which may be triggered by a [minor] change to routine).

16. Not taking apparently rude or aggressive behavior personally; and recognizing that the target for the pupil's anger may be unrelated to the source of that anger.

17. Avoid overstimulation. Minimizing/removal of distracters, or providing access to an individual work area or booth, when a task involving concentration is set. Colorful wall displays can be distracting for some pupils, others may find noise very difficult to cope with.

18. Seeking to link work to the pupil's particular interests.

19. Exploring word-processing, and computer-based learning for literacy.

20. Protecting the pupil from teasing at free times, and providing peers with some awareness of his/her particular needs.

21. Allowing the pupil to avoid certain activities (such as sports and games) which s/he may not understand or like; and supporting the pupil in open-ended and group tasks.

22. Allowing some access to obsessive behavior as a reward for positive efforts.

1.2 OBJECTIVES

Students will be able to :

- Understand specific needs of children with LD (ADD & ADHD), Visual Impairment, Hearing Impairment, Mental Retardation and Orthopedic Handicaps.

- Create curriculum for developing attention, perception, motor ability for specific groups of children.

- Develop alternative curricula to develop language skills in those with sensory handicap.

- Design appropriate curricula to develop skills in reading, writing and arithmetic for specific disabling conditions.

1.3 VISUALLY IMPAIRMENT

Educational Implications

Lack of sight can severely limit a persons experiences because the primary means for obtaining information from the environment is not available. Educational experiences in the classroom are frequently visual. Most expert agree that we should educate visually impaired students in the same general way as sighted children. Teachers need to make some modifications. They may need extra assistance from resource teachers and other specialists particularly in the area of basic skills. Students whose functional use of vision is extremely limited require specialized instruction on additional topics such as orientation and mobility. Through training in concentration and attention the blind individuals learn to make fine discriminations in the sensations they obtain. This is not automatic but the result of sustained and intensive sensory training programme with favourable learning experiences and a good attitude the people with V.I. can be developed into independent and strong healthy personalities. However for this to be achieved training has to begin as soon as visual impairment in a person is identified. Pre-School training therefore is an important aspect of the training of the people with V.I. This text is therefore divided into two parts - education of the (1) Pre-School Children, (2) School Aged Children.

For those with visual impairment, pre-school education is vital.

Education of the Pre – School Child

Pre-school programs are very important for individuals with severe visual impairment. These programs help infants and their families from the onset of their visual loss. Those who are congenitally blind or adventitiously visually handicapped at a very young age have little or no memory of how the world looks. Most infants who are blind experience a period of prolonged period of inactivity during their first[t] year of

life which inhibits their exploration and discovery of the environment. Babies develop inappropriate behaviours (blindms) and other social problems as a result because of insufficient interpersonal interactions early in life. It is important to assist babies with visual impairment –

7. To develop relationships, particularly during the first and second yrs of life, they may need to be taught how to smile and how to respond to other auditory inputs. These are skills that parents can teach their children with the help of early childhood specialists. Infants and toddlers with visual impairment do, however, act like sighted babies in other ways.

8. With some extra guidance family members can develop their vocabulary using other senses.

9. Infants with visual impairment need more stimulation than their non-handicapped peers through touch, orientation, mobility, locomotion orientation in space. This fosters mental stimulation and develops the readiness to learn.

10. The development of good listening skills needs to begin early and the first is sound localization. These goals are only part of a program for pre-schoolers with visual impairment. The involvement of parents is critical parents need to learn the effects of visual impairment, the importance of early stimulation, and strategies to cope with their baby.

11. Professionals and Parents need to help their infants become more mobile and independent through their direct efforts by teaching them to crawl and walk in a structured program (Joffee 1988). Overprotection fosters dependency and makes it difficult for adults and children with visual impairement to participate fully in society. Most infants and young children learn by imitation. Imitation is restricted for the visually handicapped.

12. Adults need to supplement what the infant touches with a verbal description of the activity or object. Naming concrete objects and describing their physical characteristics helps develop concepts, vocabulary, and improves language development. It is important for pre-schoolers to receive the most intensive education experiences as far as possible. To provide fullest attention to the child the teacher of the pre-schooler who is Visually Impaired should coordinate a team of specialists to work with the child and the family (opthamologist, occuptional therapist, physio therapist, orientation and mobility instructor and social worker).

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Education of the School Aged Child

The educational need of students with partial visual impairment differ from those of students who are blind. Students with low vision might require some extra tutorial assistance to learn or additional time. Students who are blind might require the inclusion of entirely different type of curriculum topics (eg. Lifeskills).

Some minor modifications in teaching style can help students with visual impairment gain more from the learning environment. One such modification is the careful use of oral language. To assist students gain more information the teachers can use both written and oral forms of communication more precisely. The following suggestions can be incorporated into classroom situations –

6. Repeat orally the information written on an OHP.

7. Use an OHP to display and enlarge information being presented.

8. Prepare handouts using large prints that summarize the important information presented in lectures.

9. Address students by their names first to get their attention.

10. Audiotape lectures so that students can use tapes as study aids at home.

Teachers should not lower their expectation for students with disabilities. Visual Impairment students need to be encouraged to be full class members who share their thoughts and work with others.

Familiarizing visual impairment students with topics to be covered during the term in advance helps. Advance Organizers also help (Deshier et al 1983; Lenz, Alley, Schumaker 1987).

Teachers can obtain good results by following simple procedures like handing out a weekly schedule to assist students in planning their time and study schedule and also briefing them to adjust to changes in the environment like a new building coming up in the school or preparing for a surprise party for a peer etc.

Modifications in the classroom can help students who are blind like use of Optical Aids, Magnifiers tape recorders that facilitate their learning.

Some use brailling equipment, others use portable microcomputers. They may need a larger desk etc. Commonsense accommodations can be benefitial to the students learning.

Many students with visual impairment benefit from regular education classrooms (taught same content and interact socially) However, many students need intensive education in addition to instruction they receive in the regular classroom.

Teachers need to keep the following points in mind while educating children with V.I.

13. Place the child's desk close to the teachers desk, the black board and classroom door.

14. To reduce the distracting glare, arrange the child's desk away from light source, but in a well lighted area.

15. Allow students to move closer to the chalkboard to enhance opportunities to see and hear.

16. Free the classroom from dangerous obstacles.

17. Open or close doors fully.

18. Eliminate as much unnecessary noise from the learning environment as possible.

19. Do not speak too loudly (it increases volume level in the class; including background noise).

20. Consider the individuals handicap but don't let it be an excuse for poor or unacceptable performance.

21. Always place materials in same places so that students know where items are located.

22. Do not leave the room without telling the student.

23. Seek assistance of a specialist in the area of visual impairment.

24. Have high expectations.

1.4 HEARING IMPAIRMENT

Educational Implications

Hearing impairment is a great barrier to the normal development of language. This child is a t a distinct disadvantage in virtually all aspects of language development. Language being a very powerful tool of learning its importance in academic achievement cannot be undermined. A significant number of educators of the deaf individuals behave that many of the problems of the hearing impaired people related to social and intellectual development are primarily due to their deficiencies in language. Therefore, to help hearing impaired individual develop optimally in all aspects of learning i.e. social, emotional and cognitive, it is imperative that early intervention begins much before the child enters a formal school. Since the intervention must begin with the identification of the hearing impaired child, the corresponding text is divided into two parts the education of the Pre-School Child and the education of the School Aged Child.

Education of the Pre – School Child

Pre – school programs are important for children with hearing impairments especially for those with severe and profound hearing losses. Equally important are programs for families of these children. Parents need to know how to help their child acquire language and communication skills, as well as a positive self-concept. They are primarily responsible for the child's integration into the family, neighborhood, school and community. The training, that families require can best come from professionals at an infant or pre-school program. They can help parents cope with a range of issues from understanding the social and language development of their child to the proper care and fitting of hearing – aids.

Young children, particularly those who are deaf, and their families, need intensive educational efforts during infancy and pre-school years (Appell 1982). Many families choose to learn some form of sign language or manual communication system, so that they can communicate more fully with their child. Some professionals propose that both infants and their families be taught sign language (SL), and the manual system and try to develop language "naturally".

Today, even infants can wear hearing aids and learning to take care of such equipment is an important part of their growth process. The need to use sophisticated equipment and incorporate it into their daily living need to begin early in life.

What should a good pre-school program have ?

The early intervention curriculum should be comprehensive and have 3 main foci

d)   the total development of the child within the context of his family i.e. physical, mental, social emotional and cognitive.

e)   parental knowledge of normal child development and their child' hearing abilities.

f)   support and skills to assist the child's assimilation into the family system (Bodner – Johnson 1987).

These programs are most effective when an audiologist, an educator, and often a person who is deaf is included.

4.   Children who do not get used to hearing aids early in life learn to "tune out" sounds. So, hearing aids should be introduced as early as possible.

5.   Training with prerecorded environmental sounds with their corresponding pictures.

6.   Everyday speech and high frequency words to be taught in the natural environment i.e. amidst naturally occurring noises and sounds.

Speech Reading

Speech reading involves using visual information to understand what is being said. There are 3 kinds of visual information (Sunders 1982).

4. Stimuli from the environment i.e. the context-sound coming from the kitchen or hall.

5. Stimuli associated with the message but not part of the speech e.g. action of stirring milk with the words used.

6. Stimuli directly connected with the production of speech e.g. relevant lip and tongue movements.

Total Communication

3. A number of research studies have found that deaf children of deaf parents who had been exposed to manual methods, which compared to deaf children of hearing parents who had not been so exposed, were superior in language skills, academic achievement, reading, writing and social maturity.

4. Oral and manual language should be taught at the pre-school level.

The problems facing the educators of children with hearing impairments are formidable. One major problem is communication.
Programs with oral emphasis view speech as essential for the deaf persons integration into his 'hearing world'. Much emphasis is given to amplification, auditory training, speech reading and above all talking Oral Techniques.

a) **Auditory Training** – is a procedure of teaching the deaf or hard of hearing child to make use of what hearing he possesses. The benefits of auditory training have been augmented by rapid technological advances in the development of hearing aids.

b) **Speech – reading** – sometimes inappropriately called lipreading – involves teaching hearing impaired children to use visual information to understand what is being said to them. Other visual stimuli can help the hearing impaired person to understand spoken messages.

Auditory Training involves 3 major goals –

4. Development of awareness of sound.

5. Development of the ability to make gross discriminations among environmental sound e.g. telephone ring and bicycle ring.

6. Development of the ability to discriminate among speech sounds e.g. sound B, K etc.

Total communication (T.C) using a variety of methods to assist the deaf child in expression and language development. Speech to be supplemented by one or more manual communication techniques, and meaningful communication to be encouraged between teacher and students and among students.

Sign language i.e. using gestures to represent words and concepts. The shape, position, and movement of hands, the facial expression and the intensity with which the motions are made all communicate meaning in sign language. (SL).

Finger Spelling to be used in conjunction with other methods of communication. Uses of sign language and finger spelling particularly to spell out proper names for which no sign exists and to clarify meaning which is not clear.

Cued Speech is a method for supplementing speech reading by using hand signals. 8 Hand Shapes (cues) are used in 4 different positions near the lips the hand serves to identify sounds that cannot be distinguished by speech reading alone. The cues are neither signs nor finger spelling.

Thus, T.C. encourages the deaf child to develop expressive and receptive language by using several channels of communication simultaneously. Teachers and students practicing T.C. generally express themselves by speaking and signing and understand others their' speech reading, auditory training and finger spelling. T.C. provides a reliable, receptive, expressive symbol system in the pre-school years (Denton 1972).

In short, every hearing impaired child should have access to a good program of communication that will be appropriate to his or her own uniquie abilities and needs.

Education of the School Age Child

The educational needs of two groups of students with hearing impairment are very different from each other. The challenges that hard of hearing students face are different from those of students who have substantial hearing losses. Differences exist in the way they are taught, what they are taught, and for some of these student, where they are taught. Therefore, a classification of students with mild to moderate hearing losses and students with severe to profound hearing losses needs to be made.

c)   Children with Mild to Moderate Hearing Loss : Mainstreaming seems to work well for students with mild to moderate hearing loss. Most students with hearing impairment can hear satisfactorily with amplification (i.e. hearing aid) and therefore can attend school and function well with their non-handicapped peers. Children with mild to moderate hearing impairment need to be taught well with information presented orally and a combination of textbooks, lectures and class – discussions.

Along with educational benefits, students with hearing impairment need to acquire social skills in a regular classroom. All children learn to interact positively. Teachers need to encourage support and create opportunities for such interactions to occur.

Using tactics like the puzzle technique result in better understanding of the content assigned. Sharing, discussing, and modeling for each other the steps students follow to clarify comprehend and arrive at the correct solutions help student comprehend matter conceptually.

With certain modifications, students with hearing impairment can benefit from regular classes. There are a number of simple techniques and procedures like attending the lip movements, using cued speech help students with mild to moderate hearing impairment to profit more in oral communication situations (Burrow 1983, Kampfe 1984, Teitelbaum 1981, Yater 1977).

d)   Children with Profound Hearing Losses : Three different approaches are used to teach students who are deaf –

- Speech only (oral communication).

- Sign only (manual communication)

- Speech and sign together (total communication)

With the oral approach, children must be taught to use as much of the residual hearing as possible (Ling 1984 b). Learn about amplification, how to speech read (lip read) and how to speak. For the basic oral approach believe that indurduals who are deaf must live and work in a world where most people hear normally and communicate through their oral expression. In doing so, the hearing impaired can become part of mainstream society.

However, oral approach programs have problems (ling 1984 a) Some children can benefit but not all "for some children with severe and profound sensorineural hearing losses, the attainment of intelligible speeches are an unreachable goal" . Even those who attain intelligible speech the process is arduous, slow and different.

The second education approach is manual communication Sign Language (SL) which is structured and formal, with its own linguistic rules and patterns is one cudely-used form of manual communication SL is not used by most teachers in elementary and secondary school settings. Only 3% of teachers for the deaf use ASL in their classes. A study (Woodward 1988) found that 35% of the students with hearing impairments use oral communication in their classes. Differences in the use of oral communication related to the individuals degree of hearing loss. (11% with profound losses, 78% with less than severe losses). Oral communication is used depending on degree of hearing loss often finger spelling (FS) a form which closely matches the grammatical form and language and structure of standard English. In F.S. each alphabet has a sign. Words are spelled out.

Liddell and Erting (1989) advocate the use of SL at home and at school for children with severe hearing impairments.

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1.5 MENTAL RETARDATION

Educational Implications

The training programme for the Mentally Retarded individuals converges around the development of adaptive behaviours ranging from self help skills to the development of vocational skills. Although there is some overlap, in general the focus of the educational programme varies according to the degree of retardation and the category the person belongs to. The lesser the degree of retardation the more is the emphasis on academic skills, and the greater the degree of retardation the more stress there is on the development of self help, and community living skills.

Basic to any training programme for the people with mental retardation, is the knowledge and skill regarding the 1) development of an Individualized Educational Programme (IEP). An IEP is training programme developed for each child. It is based on the assessment of the person with Mental Retardation in areas like Academics, ADL, Social skills, Personal skills, Vocational skills and Community skills and a plan for training is developed with objectives, strengths, weakness. In functional Academics, academics is taught to the student to function independently in his society eg. In functional reading the Mentally Retarded person is taught to read labels in grocery shops, names of stations, bus numbers, particular item's in news paper like TV programmes, access the telephone directory to get certain phone numbers etc. functional writing would entail writing one's name, address, telephone number, hand rudimentary banking eg. filling in deposit slips etc. Functional math would teach him enough number work to make small purchases, handle change, travel independently etc. 2) Task Analysis (TA) : Task Analysis is breaking down a task into its component steps / skills. It help in training people with retardation.

Classification according to AAMR

Given in this text is the classification of the people with Mental Retardation according to the AAMR with the corresponding curricular emphasis. Domains like Personal Social Skills and Career Education have been broken down into their sub-components for making the training process more learner friendly.

d)   Mild MR – IQ range – 55 to 70. It is difficult to find out mild MR children among their peers. In the majority of such cases, we are unable to specify the exact cause of retardation. Programmes for these children focus on academic skills and vocational training. The educational experiences of these learners have been divided into 4 classes :-

-    Pre – school classes (3-6 yrs)

-    Primary 6 – 10 yrs – reading, writing, with, social training (sharing, peer helping etc.).

- Intermediate classes – 9 – 13 yrs – Along with academic skills this group also needs pre-vocational training and training in independent living skills to live independently in society.

- Secondary school level – above 13 yrs. All vocational and social skills, interacting with people at work place and other settings.

b) Moderate MR – IQ range 35-40 to 50-55. The education of these children generally focuses on the development of self help as well as adequate communication and social skills to allow for semi- independent living. Education of these individuals is divided into 6 areas.

- Self help skills (ADL)

- Communication skills (get message across)

- Personal social skills (getting along with others)

- Perceptual motor skills (visual, auditory and tactile perception skills).

- Functional academic skills (reading, writing, arithmetic)

- Vocational skills (help in work area).

c) Severe MR IQ range 20 – 25 to 35 –40 educational efforts usually focus on basic communication and self help skills.

d) Profound MR – IQ range – below 25

The emphasis for the above 2 is on daily living skills in the areas of physical development self-care, language, training (including training in non-speech systems) and social behaviors. Behaviours such as rocking, self – abusive behavior, head banging etc. are to be eliminated with help of behaviour modification techniques.

A sample of the curricular content for these children is presented here for clarification.

Socio Personal Skills

- Positive self – image
  - ➢ Record the student's voices on tape and play them back
  - ➢ Work in groups or with a partner
  - ➢ Verbalize positive experiences

- Interpersonal Relationships
  - ➢ Greeting
  - ➢ Polite Requests
  - ➢ Goodness of voice

- ➢ Eye contact
- ➢ Interpersonal distance
- ➢ Co-operative work
- Sex Education
  - ➢ Awareness of self (sexual identification and body parts) 6-10 yrs
  - ➢ Understanding maturity and puberty 10-12 yrs
  - ➢ Interpersonal relations (sex roles, peer pressure, girlfriends, boyfriends) 12-16 yrs.
  - ➢ Sexual responsibilities and relationships (pregnancy, birth)
  - ➢ Sex and Marriage
- Clothing : (Adaptive)
  Pants with side zipper or Velcro
  Pants with loops
  Short wheel chair coat
  Loose t-shirts
  Prettied neckwear
  Pull on devices for under pants and socks

Toileting :

Training in using
  - ➢ Low toilet seats
  - ➢ Cushioned toilet seats
  - ➢ Spray pipes for cleaning
  - ➢ Automatic water spray
  - ➢ Keep self clean
  - ➢ Seek help with toileting needs

- Eating :
  - ➢ Good table manners
  - ➢ Waiting in turn
  - ➢ Eating without spilling

Career Education : Skills

- Personal Care and Skills
  - ➢ Dressing and Personal hygiene
  - ➢ Toileting

- ➢ Eating and food habits
- Personal Skills
  - ➢ Positive self – image
  - ➢ Interpersonal Relationships
  - ➢ Stress Management
- Functional Academics
  - ➢ Reading
  - ➢ Writing
  - ➢ Arithmetic
- Communication :

Communicating needs

Express ideas and opinions

- Job Related Skills :
  - ➢ Punctuality
  - ➢ Attendance
  - ➢ Task Completion - Attending to task and completing work on time.

- Work Attitude :
  - ➤ Self – dependence
  - ➤ Value of work
  - ➤ Emotional Independence
- Communication

  Communicating needs, feelings

  Expressing ideas and opinions

IEP : Example (I)

Individual Educational Program is developed in the basis of the child's assessment. It contains his strengths, weaknesses, the objectives and evaluation procedures.

Male child

Age – 12 yrs.

IQ – 52

1 ADL

Child Age 12 yrs IQ 52

Sr. No	Present Level of Performance	Annual Goal	Short Term Objective	Evaluation
1.	Cuts vegetables makes tea, kneads dough.	The student will be able to plan and cook nutritionally balanced meals.	Outcome : Student will plan and cook break fast, lunch, and dinner for five consecutive days. Will also purchase the necessary groceries.	Will independently cook two items for break fast, three items for lunch and two items for dinner for three people.
2.	Can thread the needle and do tacking.	The students will be able to mend clothing and sew on buttons.	Will choose matching colour to sew and do hemming and backstitch.	Student will mend tears and seams in pants, and shirts.

Example (II)

Functional Reading :

Diagnosis – MR

Child "A" Age 9 yrs IQ 70

Sr. No.	Present Level of Performance	Annual Goal Statements	Short-Term Objective	Evaluation procedure
	Strengths :			
1.	Can sound out consonant-vowel-consonant words.	Student will correctly read out loud all consonants imbedded in the words from a 2nd grade passage.	*Outcome :* Consonant blends (pl, sm, er, fr, tr, gr, pr, bl, sl, st, sw, el, dr, br, sp) *Context* : When presented in a word (pronounce whole word) Criteria : 50 words 90% - 100%	50 nonsense words with initial consonant blends. Teacher reads ending, student supplies banging sound. Probe sheet-20 words w/initial consonant blends.

Teaching Reading and Comprehension

The following are suggestions for methods and activities that may be helpful in teaching reading comprehension :

5. Understanding basic vocabulary is an important initial step in improving comprehension skills. Helping students develop branching trees by clustering words according to association is one technique to improve word comprehension. For example the word "ball" can be associated with "catch" and "throw." As students begin to learn words in clusters, these words become cues for other associated words.

6. It is important to teach learners vocabulary words that lend meaning to a paragraph by describing when things occur. Initially teachers should present words such as "to begin with next, after that and finally", helping the students to follow the organization of the story.

7. The ability of students to identify key words and main ideas in a sentence or paragraph is an important skill. Color coding words or underlining main ideas can help direct the student's attention to relevant stimuli.

8. After students read stories, teachers can provide them with phrases that describe what the story was about. After a number of trials, teachers can provide multiple phrases, requiring the students to choose the one that best fits the story.

1.6 ORTHOPEDIC DISABILITIES

Educational Implications

So long as children have a normal intelligence and the orthopedic implications are minor that can easily be taken care in the regular class, they can be integrated in the mainstream with no curricular adaptations whatsoever e.g. the children with polio. However not al orthopedic conditions are like this. When the disability demands specific type of interventions for giving the children a normal or near normal life, certain curricular adaptations have to be developed.

For Children with CP the Specific Curricular needs are as follows

A. Academic Areas

Perceptual – Motor Activities

Activities for

d) Visual Memory e.g. with close eyes name three things you saw in box, or reproducing block designs etc.

e) Visual Discrimination e.g. find the small cup or find the odd one out.

f) Visual figure – ground (selective attention) e.g. from the picture of the circus show me all the tigers, those in blue shirts etc.

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g) Visual – motor integration e.g. picking up small objects, coloring, joining dots etc.

h) Visual Spatial – eg. show me the boy is 'up' far, besides, left, right etc.

8. a) Auditory Memory eg. reciting poems/sings learning language etc.

e) Auditory Discrimination – listening to instructions and following them eg. give me the red plate not the blue one – or which word does not rhyme with cut,: hut mat rut.

f) Auditory figure ground – amidst a noisy environment listening to a story and answer question on it.

9. Mobility training i.e. use and care of crutches, calipers, and such other mobility aids.

10. Communication – those unable to use regular language have to use alternative mode of communication like Blissymbolics, the Makaton etc. Yarning and therapy in Speech too would help those with articulation and voice defects.

11. Development of self reliance and confidence through work experiences must be an integral past of the curriculum.

12. Use of writing devices for those with fine motor problems and the use of Computer Assisted Devices (CAD) is strongly recommended.

13. Development of Social Skills – by simulations and first hand experiences are necessary.

For those with Spine Deformities

4. Sensory Training – to handle the loss of sense of touch.

5. Toilet Training

a) training in "emptying" the bladder and "bowel" by applying pressure at certain points, periodically.

b) Related hygiene

c) Use and disposing of pads during menstruation at regular intervals.

6. Development of the environmental awareness.

7.

B. Non – Academic Areas

6. Training in motor – coordination by physic-therapists to enable the child to develop gross motor skills to walk, run etc. or use the mobility aid/devise.

7. Training in ADL activities by occupational therapists e.g. brushing, dressing, bathing, eating etc.

8. Speech therapy when organs of speech are involved to help in voice training, articulation etc.

9. Training in chewing food, swallowing of food.

10. Sensory training for a sterognosis is common among those with upper limbs involvement (i.e. Poor memory of shape and texture of objects).

1.7 OTHER DISABILITIES :

Learning Disabilities (Ld) , Attention Deficit Disorder (Add), Attention Deficit Hyperactivity Disorder (Adhd)

Educational Implications

Most students with LD demonstrate some degree of attention deficits, hence the curriculum planning for students with LD, ADD (Attention Deficit Disorder) and ADHD (Attention deficit with Hyperactive Disorder) has been taken together. Paying attention to a task till its completion is very challenging for students with LD, ADD & ADHD. A failure in learning occurs because of inability to sustain attention till task completion. Therefore to help students focus and sustain attention on a task during seat work.:

- Make sure students have understood the instructions before making them do a task.

- Give a student only that much work that he can manage without great difficulty.

- In case he needs the attention of the teacher, give him some work he can do independently and which he likes.

- Give positive reinforcement every time the child is "on-the task".

- Use a timer

- Use quiet corners for seat work.

Study buddies could be used to help the students remain attentive and on task.

Reading Skills in Learning Disability

Reading is a process where by one accesses verbal information through the medium of presented symbols. To read efficiently, therefore one needs a sound understanding of the symbolic nature of the language i.e. its sound system to form words, sentences and paragraphs. Problems in reading arise because of a poor perceptual maturity or poor language skills. The following is suggested to deal with such problems –

7. Providing learners with an outline of the subject matter they are about to read. This helps them anticipate what to look for in their reading. Special educators can develop these outlines by asking the teachers what topics in the readings are considered most important. Partially completed outlines can be provided for students to complete. This technique also helps students discriminate the important points in reading.

8. Teaching students key vocabulary in content area lessons can assist them in comprehending class lectures and scanning more difficult reading materials. These words can be taught using sight word techniques such as pairing the word with a corresponding picture.

9. Having peers tape-record chapters, can provide learners with another modality for covering the assignments. Peer tutors can also assist mildly retarded learners in studying for tests or completing assignments.

10. Teaching good study and note taking skills can be a great help to mainstreamed learners. Criscoe and Gee (1984) have suggested teaching the "survey, question, read, recite, review" approach. Basically, students are taught to survey the material briefly, locating the main points. They then convert the main points to questions that may help to increase their comprehension. At that point, they read until they can answer each question, recite the answers, and finally review after all questions have been answered.

11. Memory aids are an important set of skills for weak learners. Criscoe and Gee (1984) have suggested some aids such as (1) poetic devices – "thirty days hath September"; (2) linking techniques-linking words to form a mental image; and (3) location techniques-visually "walking through" the exercise.

12. Many learning disability students may not perform well on content based tests because of their deficits in reading (Bruno & Newman, 1985). Special educators could assist regular education teachers in developing alternate projects that assess student's knowledge, yet do not rely solely on reading ability.

Writing Skills

Those children with reading problems also have problems in writing. These could be because of poor visuo motor integration, poor language skills, or poor memory for spelling correctly. Suggested here are activities that foster writing skills, note taking, and in some instances creative writing to help these learners become more independent.

9. The microcomputer can be a tremendous help to LD children practicing written expression. Word processing packages (e.g. BANK STREET WRITER from Broderblind Software, Inc.) can assist learners who previously have found writing too difficult because of severe deficits in handwriting, spelling, punctuation, and other skills.

10. Providing students with a list of words they can use to form sentences can be a meaningful exercise for those who lack an adequate vocabulary.

11. Providing students with incomplete sentences that they are required to finish by supplying the main idea, can help them to complete their thoughts. The procedure would be to gradually fade the numbers of words provided by the teacher.

12. For students whose experiences are limited, organizing groups to share ideas for a story can be a helpful way to generate content. Teams of students can work together to make up the story.

13. Teaching manuscript writing is easier to master than cursive writing, however, it is less versatile. The best practice may be to match the technique best suited to each student.

14. Hagin (1983) has suggested an approach that combines both manuscript and cursive writing. Manuscript letters are connected using waves, pearls, wheels, and arrows. Students practice at the chalkboard and on acetate sheets placed over printed models.

15. Commercially produced methods for teaching cursive writing may provide teachers with an effective, structured program (e.g. Barbe, Lucas, Hackney, Braun, & Wasylyk 1984).

16. Reading and spelling are so closely related they should be emphasized together as much as possible. For example, students can identify words in their readings that they have learnt to spell and write.

Math Strategies

Since with some LDs, learning problems encompass all areas of academic learning, math is another area of concern. Problems faced here are because of perceptual or language comprehension deficits, where reading the numbers correctly, writing them

in the correct column performing the right operation and comprehending the problem become difficult. Some suggested. solutions to these problems are -

8. **Allow a choice of paper**. Keep available in class some graph paper that is already 3-hole punched. Require students to show their work and write problems neatly, either: (a) on regular paper with two or three lines of space between problems; (b) on lined notebook paper, thin lined or wide-lined held side ways; or (c) on graph paper.

9. **Reduce the number of problems that you assign**. There is no need to assign every problem on a page to assess your student's understanding or provide practice. Allow students to do few problems required to be written neatly, spaced well, with rough work shown.

10. **Avoid anxiety of timed tests of basic facts**. There are a number of students (ADD and learning disabled) who have extreme difficulty memorizing basic facts. Let them respond orally if writing is difficult.

11. **Color highlight** processing signs for students who are inattentive to change in operational signs on a page.

12. **Color dot** the ones (units) column to remind students where to begin computation.

13. **Use mnemonics** (memory devices) to help with recall of steps. Examples: Steps of long division can be remembered by "dad, mother, sister, brother" or "Dear Miss Sally Brown" (for divide, multiply, subtract, bring-down).

14. Familiarize students with mathematical language eg. Divided equally, ten times more, the sum of etc.

1.8 UNIT SUMMARY

- The disabled children of different categories have specific needs.

- Creation of curriculum for developing attention perception, motor ability for specific group of children.

- Development of attente curricula for development of language skills in those with sensory handicap.

- Designing appropriate curricula for developing reading, writing and arithmetic skills for specific disabled children.

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1.9 CHECK YOUR PROGRESS

1. What is curriculum? How to create curriculum for developing attention, perception, motor ability for visual impaired children?

2. What points would you take into consideration to develop alternate curriculum for the development of language skills in those with sensory handicap.

3. Design curricula for developing the following skills in disability condition of your choice:

   (d) Reading skills

   (e) Arithmetic skills

   (f) Writing skills

1.10 ASSIGNMENTS

4. Plan a curriculum to develop skills in reading comprehension in 10 yrs. old child with LD (ADHD).

5. Design a curriculum to develop pre-language skills in a 8 yrs. old child with pre-linguial deafness.

6. You have started an early intervention clinic. Plan a curriculum for children with VI, CP, & MR to optimize their development.

1.11 POINTS FOR DISCUSSION AND CLARIFICATION

After going through this Unit you might like to have further discussion on some points and clarification on others

1.11.1 Points for discussion

1.11.2 Points for clarification

1.12 FURTHER READINGS

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UNIT – 5: VOCATIONAL TRAINING AND CAREER OPPORTUNITIES

STRUCTURE

1   **Introduction**

2   **Objectives**

3   **Definitions**

4   **Summary**

5   **Revision**

6   **Assignment/Activity**

7   **Points For Discussion And Clarification**

8   **References / Further Readings**

1.1 INTRODUCTION

The advent of the new millenium shows a phenomenal increase in the concern for children with special needs. Since education has been universally accepted as fundamental right, the learning needs of children with special needs, deserve a serious rethinking and analysis. It calls for expansion in the service delivery system to enable the special learners to access education. This chapter highlights the specific requirements of certain conditions of exceptionality and its ensuing curricular needs to help children develop optimally cognitively and socially. It is a response to the emerging broader perspectives of the child with special needs, where the total developmental status of the child is being revived for appropriate and timely intervention.

Vocational training is used to prepare for a certain trade or craft. Decades ago, it used to refer solely to such fields are welding and automotive service, but today it can range from hand trades to retail to tourism management. Vocational training is education only in the type of trade a person wants to pursue, forgoing traditional academics.

Vocational training, also known as Vocational Education and Training (VET) and Career and Technical Education (CTE), provides job-specific technical training for trades, such as auto repair, plumbing and retail. These programs generally focus on providing students with hands-on instruction, and can lead to certification, a diploma or certificate.

Vocational training can also give applicants an edge in job searches, since they already have the certifiable knowledge they need to enter the field. A student can receive vocational training either in high school, a community college or at trade schools for adults.

Some vocational training is found in the form of high school CTE programs that include academic study as well as a variety of courses and work experiences designed to introduce students to trades ranging from construction, business and health services to art and design, agriculture and information technology.

This form of education can be offered at high school campuses or separate vocational training centers. The ultimate goal of these programs is to prepare students for the job field and help them complete their high school education.

Community colleges and technical schools also offer a variety of vocational courses and programs. This form of instruction includes hands-on training without the added emphasis on standard subjects like math and English. Instead, students take specific classes related to the job they're training for.

Vocational schools typically utilize cooperative training techniques, where students are able to work in the job they're studying for and attend classes. Most vocational training programs can be completed within six months to two years.

Individuals with ASD have markedly different vocational needs than individuals with other developmental disabilities [5, 56]. Because each person demonstrates a variety of characteristics across the diagnostic criteria, each individual is unique. The spectrum of need and ability makes the provision of successful employment a great challenge indeed [38]. As noted by Simpson: The countless permutations and combinations of social interactions, language, learning, sensory, and behavior deficits and excesses found in these individuals, in combination with their wide range of abilities,

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developmental levels, isolated skills, and unique personalities make autism an especially baffling disability ([73], p. 69). Interactional difficulties associated with ASD account for the biggest vocational impact [25, 26, 64, 79]. In interviews with adults with ASD, communication and social difficulties with supervisors and coworkers consistently emerge as a primary hindrance to job performance [8, 56, 67, 83]. Bolman [6] found that such difficulties often lead to termination. Communication obstacles include difficulty understanding directions; inability to "read between the lines", read facial expressions, and tone of voice; asking too many questions; and communicating in an inappropriate manner [32, 33]. Social impairment involves a wide array of deficits intrinsic to successful interactions and may include inappropriate hygiene and grooming skills, difficulty following social rules, inability to understand affect, working alone, and acting inappropriately with individuals of the opposite sex [42, 84, 86]. Navigating social interactions are often problematic even before employment is procured and begins with mastering the job application and interview process [56]. There are areas of cognitive functioning known to be impacted in individuals with ASD which can affect job performance. Impairments in executive functioning are well documented [43, 48, 54, 85]. Many exhibit difficulties in task execution due to problems with attention, motor planning, response shifting, and working memory [31, 50, 56, 64]. Acclimating to new job routines and managing changes in the work setting often pose a challenge [38]. Individuals with AS demonstrate difficulties with both problem-solving and organization, despite having average or above-average intelligence [2]. According to Howlin [27], many may experience difficulty in fulfilling employment roles as they get older due to a deterioration in skills that may occur in early adulthood for those who have low IQs or develop epilepsy. Behavioral difficulties which may include tantrums, aggression, self-injury, property destruction, ritualistic behaviors, or pica can create an employment barrier [4, 7, 41, 75, 76, 81]. Interfering behaviors create a complicated issue as many are misinterpreted, have multiple functions, and require multi-faceted behavior management strategies [39]. Such behaviors are not well tolerated in the workplace and may prevent employment all together and lead to segregation [77]. Individuals with ASD report encountering high levels of stress and anxiety in the workplace which may interfere with performance. Hurlbutt and Chalmers [33] interviewed six adults with AS who reported high levels of anxiety due to the task of trying to fit in socially with the neurotypicalworld. Burt et al. [7] found that individuals with autism had increased anxiety due to sensitivity toworkplace noise and other sensory stimuli. Camarena and Sarigiani [8] interviewed the parents of 21 highfunctioning adolescents with ASD regarding postsecondary aspirations. Parents reported anxiety as a major obstacle for postsecondary success due to their child's fear of the unknown and navigating social interactions. The comorbidity with a variety of psychiatric symptoms including depression, anxiety, and bipolar disorder in individuals with ASD has been widely reported [23, 40, 72, 84]. Further, the onset of epilepsy occurs in approximately one-third of the population [5, 18]. Such mental and physical health problems may significantly interfere with the capacity for positive employment outcomes. Schaller

and Yang [71] used the 2001 Rehabilitation Services Administration database to describe the demographic characteristics related to employment by the 815 individuals with ASD who achieved competitive and supported employment outcomes. Absence of a secondary disability was significantly related to successful competitive employment. Given the heterogeneity found in this group, for employment to be procured and maintained in the community, there must be a variety of services and supports provided. Vocational Rehabilitation (VR) programs provide supports and services designed to help individuals with disabilities meet their employment goals by assisting individuals prepare for, get, keep, or regain employment. The number of individuals with ASD utilizing VR services increased by more than 121 percent from 2002 to 2006 [14]. The small body of research evaluating employment outcomes of the VR system suggests that services provided through these programs are less than optimal for individuals with ASD and do not provide sufficient support [56]. Lawer et al. [47] examined the employment outcomes of 1,707 adults with ASD in the United States VR system whose cases were closed in 2005. Individuals with ASD were much more likely than adults with other impairments to be denied services as a result of being considered to have a disability too severe to benefit from services. Cimera and Cowan examined employment outcomes obtained by adults with ASD whose cases were closed between 2002 and 2006. The number of cases closed reached 41%. While this percentage was similar or higher to other disability groups investigated, those with ASD worked far fewer hours and earned lower wages. In addition to having limited efficacy, generic employment services and supports are not cost effective. Research indicates employment services offered through our current VR system for individuals with ASD are expensive and may cost more than services for other disability groups. Cimera andCowan found service costs for those with ASD were among the most costly of nine disability groups served. Only participants with sensory impairments obtained services that cost more. Lawer et al. found services obtained by adults with ASD were the most costly of all groups served.

Mounting research indicates supports related to job placement are the most impactful when it comes to successful employment [71]. Particularly crucial is ensuring an appropriate job match. In their description of the Treatment and Education of Autistic and related Communication–handicapped CHildren (TEACCH) supported employment program,Keel et al. [38] emphasized the need for job placement to be individualized and based on the person's strengths and interests. Research describing Prospects, a supported employment program for adults with AS, stresses the need to identify jobs that are appropriate to the individual's intellectual and educational background and that match his or her social skills and abilities [28, 51].

Placement also requires considerations regarding the job tasks and work environment [38]. An appropriate job is predictable and can be adapted to a schedule for the person with ASD. Work tasks are clearly defined and in areas with minimal distractions.

According to personal opinion, jobs should require minimal social skills, allow adequate time for learning, and be void of excessive sensory stimulation [56].

To assist in ensuring an appropriate job placement a variety of strategies highlighted in the literature. Job preference has been determined through exposure range of tasks in a variety of business [61], assessments. Lattimore et al. [44] found paired-item preference assessments determined more or less preferred tasks for work while Lattimore et al. [45] found efficacy in multi-stimulus assessments. Nuehring and a formal process for using assessments to job match. These assessments took the form behavior observations, situational assessments, and analysis of background information. The assessment data were used to determine individual interests, jobs the individual could do well, jobs requiring assistance habits needing further development. In a vocational support program described by al. [26] job placement skills, including job matching, were taught to adults with These skills covered job searching, identifying appropriate jobs, preparing resumes, and interviewing. Instruction was provided one on one for a minimum of one hour per week until employment was secured.

1.2 OBJECTIVES

Students will be able to :

- Understand specific needs of children with LD (ADD & ADHD), Visual Impairment, Hearing Impairment, Mental Retardation and Orthopedic Handicaps.

- Create curriculum for developing attention, perception, motor ability for specific groups of children.

- Develop alternative curricula to develop language skills in those with sensory handicap.

- Design appropriate curricula to develop skills in reading, writing and arithmetic for specific disabling conditions.

1.3 VISUALLY IMPAIRMENT

Educational Implications

Lack of sight can severely limit a persons experiences because the primary means for obtaining information from the environment is not available. Educational experiences

in the classroom are frequently visual. Most expert agree that we should educate visually impaired students in the same general way as sighted children. Teachers need to make some modifications. They may need extra assistance from resource teachers and other specialists particularly in the area of basic skills. Students whose functional use of vision is extremely limited require specialized instruction on additional topics such as orientation and mobility. Through training in concentration and attention the blind individuals learn to make fine discriminations in the sensations they obtain. This is not automatic but the result of sustained and intensive sensory training programme with favourable learning experiences and a good attitude the people with V.I. can be developed into independent and strong healthy personalities. However for this to be achieved training has to begin as soon as visual impairment in a person is identified. Pre-School training therefore is an important aspect of the training of the people with V.I. This text is therefore divided into two parts - education of the (1) Pre-School Children, (2) School Aged Children.

For those with visual impairment, pre-school education is vital.

Education of the Pre – School Child

Pre-school programs are very important for individuals with severe visual impairment. These programs help infants and their families from the onset of their visual loss. Those who are congenitally blind or adventitiously visually handicapped at a very young age have little or no memory of how the world looks. Most infants who are blind experience a period of prolonged period of inactivity during their first year of life which inhibits their exploration and discovery of the environment. Babies develop inappropriate behaviours (blindms) and other social problems as a result because of insufficient interpersonal interactions early in life. It is important to assist babies with visual impairment –

13. To develop relationships, particularly during the first and second yrs of life, they may need to be taught how to smile and how to respond to other auditory inputs. These are skills that parents can teach their children with the help of early childhood specialists. Infants and toddlers with visual impairment do, however, act like sighted babies in other ways.

14. With some extra guidance family members can develop their vocabulary using other senses.

15. Infants with visual impairment need more stimulation than their non-handicapped peers through touch, orientation, mobility, locomotion orientation in space. This fosters mental stimulation and develops the readiness to learn.

16. The development of good listening skills needs to begin early and the first is sound localization. These goals are only part of a program for pre-schoolers with visual impairment. The involvement of parents is critical parents need to

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learn the effects of visual impairment, the importance of early stimulation, and strategies to cope with their baby.

17. Professionals and Parents need to help their infants become more mobile and independent through their direct efforts by teaching them to crawl and walk in a structured program (Joffee 1988). Overprotection fosters dependency and makes it difficult for adults and children with visual impairement to participate fully in society. Most infants and young children learn by imitation. Imitation is restricted for the visually handicapped.

18. Adults need to supplement what the infant touches with a verbal description of the activity or object. Naming concrete objects and describing their physical characteristics helps develop concepts, vocabulary, and improves language development. It is important for pre-schoolers to receive the most intensive education experiences as far as possible. To provide fullest attention to the child the teacher of the pre-schooler who is Visually Impaired should coordinate a team of specialists to work with the child and the family (opthamologist, occuptional therapist, physio therapist, orientation and mobility instructor and social worker).

Education of the School Aged Child

The educational need of students with partial visual impairment differ from those of students who are blind. Students with low vision might require some extra tutorial assistance to learn or additional time. Students who are blind might require the inclusion of entirely different type of curriculum topics (eg. Lifeskills).

Some minor modifications in teaching style can help students with visual impairment gain more from the learning environment. One such modification is the careful use of oral language. To assist students gain more information the teachers can use both written and oral forms of communication more precisely. The following suggestions can be incorporated into classroom situations –

11. Repeat orally the information written on an OHP.

12. Use an OHP to display and enlarge information being presented.

13. Prepare handouts using large prints that summarize the important information presented in lectures.

14. Address students by their names first to get their attention.

15. Audiotape lectures so that students can use tapes as study aids at home.

Teachers should not lower their expectation for students with disabilities. Visual Impairment students need to be encouraged to be full class members who share their thoughts and work with others.

Familiarizing visual impairment students with topics to be covered during the term in advance helps. Advance Organizers also help (Deshier et al 1983; Lenz, Alley, Schumaker 1987).

Teachers can obtain good results by following simple procedures like handing out a weekly schedule to assist students in planning their time and study schedule and also briefing them to adjust to changes in the environment like a new building coming up in the school or preparing for a surprise party for a peer etc.

Modifications in the classroom can help students who are blind like use of Optical Aids, Magnifiers tape recorders that facilitate their learning.

Some use brailling equipment, others use portable microcomputers. They may need a larger desk etc. Commonsense accommodations can be benefiticial to the students learning.

Many students with visual impairment benefit from regular education classrooms (taught same content and interact socially) However, many students need intensive education in addition to instruction they receive in the regular classroom.

Teachers need to keep the following points in mind while educating children with V.I.

25. Place the child's desk close to the teachers desk, the black board and classroom door.

26. To reduce the distracting glare, arrange the child's desk away from light source, but in a well lighted area.

27. Allow students to move closer to the chalkboard to enhance opportunities to see and hear.

28. Free the classroom from dangerous obstacles.

29. Open or close doors fully.

30. Eliminate as much unnecessary noise from the learning environment as possible.

31. Do not speak too loudly (it increases volume level in the class; including background noise).

32. Consider the individuals handicap but don't let it be an excuse for poor or unacceptable performance.

33. Always place materials in same places so that students know where items are located.

34. Do not leave the room without telling the student.

35. Seek assistance of a specialist in the area of visual impairment.

36. Have high expectations.

1.4 HEARING IMPAIRMENT

Educational Implications

Hearing impairment is a great barrier to the normal development of language. This child is a t a distinct disadvantage in virtually all aspects of language development. Language being a very powerful tool of learning its importance in academic achievement cannot be undermined. A significant number of educators of the deaf individuals behave that many of the problems of the hearing impaired people related to social and intellectual development are primarily due to their deficiencies in language. Therefore, to help hearing impaired individual develop optimally in all aspects of learning i.e. social, emotional and cognitive, it is imperative that early intervention begins much before the child enters a formal school. Since the intervention must begin with the identification of the hearing impaired child, the corresponding text is divided into two parts the education of the Pre-School Child and the education of the School Aged Child.

Education of the Pre – School Child

Pre – school programs are important for children with hearing impairments especially for those with severe and profound hearing losses. Equally important are programs for families of these children. Parents need to know how to help their child acquire language and communication skills, as well as a positive self-concept. They are primarily responsible for the child's integration into the family, neighborhood, school and community. The training, that families require can best come from professionals at an infant or pre-school program. They can help parents cope with a range of issues from understanding the social and language development of their child to the proper care and fitting of hearing – aids.

Young children, particularly those who are deaf, and their families, need intensive educational efforts during infancy and pre-school years (Appell 1982). Many families choose to learn some form of sign language or manual communication system, so that they can communicate more fully with their child. Some professionals propose that both infants and their families be taught sign language (SL), and the manual system and try to develop language "naturally".

Today, even infants can wear hearing aids and learning to take care of such equipment is an important part of their growth process. The need to use sophisticated equipment and incorporate it into their daily living need to begin early in life.

What should a good pre-school program have ?

The early intervention curriculum should be comprehensive and have 3 main foci

g)   the total development of the child within the context of his family i.e. physical, mental, social emotional and cognitive.

h)   parental knowledge of normal child development and their child' hearing abilities.

i)   support and skills to assist the child's assimilation into the family system (Bodner – Johnson 1987).

These programs are most effective when an audiologist, an educator, and often a person who is deaf is included.

7.   Children who do not get used to hearing aids early in life learn to "tune out" sounds. So, hearing aids should be introduced as early as possible.

8.   Training with prerecorded environmental sounds with their corresponding pictures.

9.   Everyday speech and high frequency words to be taught in the natural environment i.e. amidst naturally occurring noises and sounds.

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Speech Reading

Speech reading involves using visual information to understand what is being said. There are 3 kinds of visual information (Sunders 1982).

7. Stimuli from the environment i.e. the context-sound coming from the kitchen or hall.

8. Stimuli associated with the message but not part of the speech e.g. action of stirring milk with the words used.

9. Stimuli directly connected with the production of speech e.g. relevant lip and tongue movements.

Total Communication

5. A number of research studies have found that deaf children of deaf parents who had been exposed to manual methods, which compared to deaf children of hearing parents who had not been so exposed, were superior in language skills, academic achievement, reading, writing and social maturity.

6. Oral and manual language should be taught at the pre-school level.

The problems facing the educators of children with hearing impairments are formidable. One major problem is communication.

Programs with oral emphasis view speech as essential for the deaf persons integration into his 'hearing world'. Much emphasis is given to amplification, auditory training, speech reading and above all talking Oral Techniques.

a) **Auditory Training** – is a procedure of teaching the deaf or hard of hearing child to make use of what hearing he possesses. The benefits of auditory training have been augmented by rapid technological advances in the development of hearing aids.

b) **Speech – reading** – sometimes inappropriately called lipreading – involves teaching hearing impaired children to use visual information to understand what is being said to them. Other visual stimuli can help the hearing impaired person to understand spoken messages.

Auditory Training involves 3 major goals –

7. Development of awareness of sound.

8. Development of the ability to make gross discriminations among environmental sound e.g. telephone ring and bicycle ring.

9. Development of the ability to discriminate among speech sounds e.g. sound B, K etc.

Total communication (T.C) using a variety of methods to assist the deaf child in expression and language development. Speech to be supplemented by one or more manual communication techniques, and meaningful communication to be encouraged between teacher and students and among students.

Sign language i.e. using gestures to represent words and concepts. The shape, position, and movement of hands, the facial expression and the intensity with which the motions are made all communicate meaning in sign language. (SL).

Finger Spelling to be used in conjunction with other methods of communication. Uses of sign language and finger spelling particularly to spell out proper names for which no sign exists and to clarify meaning which is not clear.

Cued Speech is a method for supplementing speech reading by using hand signals. 8 Hand Shapes (cues) are used in 4 different positions near the lips the hand serves to identify sounds that cannot be distinguished by speech reading alone. The cues are neither signs nor finger spelling.

Thus, T.C. encourages the deaf child to develop expressive and receptive language by using several channels of communication simultaneously. Teachers and students practicing T.C. generally express themselves by speaking and signing and understand others their' speech reading, auditory training and finger spelling. T.C. provides a reliable, receptive, expressive symbol system in the pre-school years (Denton 1972).

In short, every hearing impaired child should have access to a good program of communication that will be appropriate to his or her own uniquie abilities and needs.

Education of the School Age Child

The educational needs of two groups of students with hearing impairment are very different from each other. The challenges that hard of hearing students face are different from those of students who have substantial hearing losses. Differences exist in the way they are taught, what they are taught, and for some of these student, where they are taught. Therefore, a classification of students with mild to moderate hearing losses and students with severe to profound hearing losses needs to be made.

e) Children with Mild to Moderate Hearing Loss : Mainstreaming seems to work well for students with mild to moderate hearing loss. Most students with hearing impairment can hear satisfactorily with amplification (i.e. hearing aid) and therefore can attend school and function well with their non-handicapped peers. Children with mild to moderate hearing impairment need to be taught well with information presented orally and a combination of textbooks, lectures and class – discussions.

Along with educational benefits, students with hearing impairment need to acquire social skills in a regular classroom. All children learn to interact positively. Teachers need to encourage support and create opportunities for such interactions to occur.

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Using tactics like the puzzle technique result in better understanding of the content assigned. Sharing, discussing, and modeling for each other the steps students follow to clarify comprehend and arrive at the correct solutions help student comprehend matter conceptually.

With certain modifications, students with hearing impairment can benefit from regular classes. There are a number of simple techniques and procedures like attending the lip movements, using cued speech help students with mild to moderate hearing impairment to profit more in oral communication situations (Burrow 1983, Kampfe 1984, Teitelbaum 1981, Yater 1977).

f) Children with Profound Hearing Losses : Three different approaches are used to teach students who are deaf –

- Speech only (oral communication).

- Sign only (manual communication)

- Speech and sign together (total communication)

With the oral approach, children must be taught to use as much of the residual hearing as possible (Ling 1984 b). Learn about amplification, how to speech read (lip read) and how to speak. For the basic oral approach believe that indurduals who are deaf must live and work in a world where most people hear normally and communicate through their oral expression. In doing so, the hearing impaired can become part of mainstream society.

However, oral approach programs have problems (ling 1984 a) Some children can benefit but not all "for some children with severe and profound sensorineural hearing losses, the attainment of intelligible speeches are an unreachable goal" . Even those who attain intelligible speech the process is arduous, slow and different.

The second education approach is manual communication Sign Language (SL) which is structured and formal, with its own linguistic rules and patterns is one cudely-used form of manual communication SL is not used by most teachers in elementary and secondary school settings. Only 3% of teachers for the deaf use ASL in their classes. A study (Woodward 1988) found that 35% of the students with hearing impairments use oral communication in their classes. Differences in the use of oral communication related to the individuals degree of hearing loss. (11% with profound losses, 78% with less than severe losses). Oral communication is used depending on degree of hearing loss often finger spelling (FS) a form which closely matches the grammatical form and language and structure of standard English. In F.S. each alphabet has a sign. Words are spelled out.

Liddell and Erting (1989) advocate the use of SL at home and at school for children with severe hearing impairments.

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1.5 MENTAL RETARDATION

Educational Implications

The training programme for the Mentally Retarded individuals converges around the development of adaptive behaviours ranging from self help skills to the development of vocational skills. Although there is some overlap, in general the focus of the educational programme varies according to the degree of retardation and the category the person belongs to. The lesser the degree of retardation the more is the emphasis on academic skills, and the greater the degree of retardation the more stress there is on the development of self help, and community living skills.

Basic to any training programme for the people with mental retardation, is the knowledge and skill regarding the 1) development of an Individualized Educational Programme (IEP). An IEP is training programme developed for each child. It is based on the assessment of the person with Mental Retardation in areas like Academics, ADL, Social skills, Personal skills, Vocational skills and Community skills and a plan for training is developed with objectives, strengths, weakness. In functional Academics, academics is taught to the student to function independently in his society eg. In functional reading the Mentally Retarded person is taught to read labels in grocery shops, names of stations, bus numbers, particular item's in news paper like TV programmes, access the telephone directory to get certain phone numbers etc. functional writing would entail writing one's name, address, telephone number, hand rudimentary banking eg. filling in deposit slips etc. Functional math would teach him enough number work to make small purchases, handle change, travel independently etc. 2) Task Analysis (TA) : Task Analysis is breaking down a task into its component steps / skills. It help in training people with retardation.

Classification according to AAMR

Given in this text is the classification of the people with Mental Retardation according to the AAMR with the corresponding curricular emphasis. Domains like Personal Social Skills and Career Education have been broken down into their sub-components for making the training process more learner friendly.

g)   Mild MR – IQ range – 55 to 70. It is difficult to find out mild MR children among their peers. In the majority of such cases, we are unable to specify the exact cause of retardation. Programmes for these children focus on academic skills and vocational training. The educational experiences of these learners have been divided into 4 classes :-

-     Pre – school classes (3-6 yrs)

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- Primary 6 – 10 yrs – reading, writing, with, social training (sharing, peer helping etc.).

- Intermediate classes – 9 – 13 yrs – Along with academic skills this group also needs pre-vocational training and training in independent living skills to live independently in society.

- Secondary school level – above 13 yrs. All vocational and social skills, interacting with people at work place and other settings.

b) Moderate MR – IQ range 35-40 to 50-55. The education of these children generally focuses on the development of self help as well as adequate communication and social skills to allow for semi- independent living. Education of these individuals is divided into 6 areas.

- Self help skills (ADL)

- Communication skills (get message across)

- Personal social skills (getting along with others)

- Perceptual motor skills (visual, auditory and tactile perception skills).

- Functional academic skills (reading, writing, arithmetic)

- Vocational skills (help in work area).

c) Severe MR IQ range 20 – 25 to 35 –40 educational efforts usually focus on basic communication and self help skills.

d) Profound MR – IQ range – below 25

The emphasis for the above 2 is on daily living skills in the areas of physical development self-care, language, training (including training in non-speech systems) and social behaviors. Behaviours such as rocking, self – abusive behavior, head banging etc. are to be eliminated with help of behaviour modification techniques.

A sample of the curricular content for these children is presented here for clarification.

Socio Personal Skills

- Positive self – image
  - ➤ Record the student's voices on tape and play them back
  - ➤ Work in groups or with a partner
  - ➤ Verbalize positive experiences

- Interpersonal Relationships
  - ➤ Greeting

- ➢ Polite Requests
- ➢ Goodness of voice
- ➢ Eye contact
- ➢ Interpersonal distance
- ➢ Co-operative work
- Sex Education
  - ➢ Awareness of self (sexual identification and body parts) 6-10 yrs
  - ➢ Understanding maturity and puberty 10-12 yrs
  - ➢ Interpersonal relations (sex roles, peer pressure, girlfriends, boyfriends) 12-16 yrs.
  - ➢ Sexual responsibilities and relationships (pregnancy, birth)
  - ➢ Sex and Marriage
- Clothing : (Adaptive)
  Pants with side zipper or Velcro
  Pants with loops
  Short wheel chair coat
  Loose t-shirts
  Prettied neckwear
  Pull on devices for under pants and socks

Toileting :

Training in using
- ➢ Low toilet seats
- ➢ Cushioned toilet seats
- ➢ Spray pipes for cleaning
- ➢ Automatic water spray
- ➢ Keep self clean
- ➢ Seek help with toileting needs

- Eating :
  - ➢ Good table manners
  - ➢ Waiting in turn
  - ➢ Eating without spilling

Career Education : Skills

- Personal Care and Skills

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- ➢ Dressing and Personal hygiene
- ➢ Toileting
- ➢ Eating and food habits
- Personal Skills
  - ➢ Positive self – image
  - ➢ Interpersonal Relationships
  - ➢ Stress Management
- Functional Academics
  - ➢ Reading
  - ➢ Writing
  - ➢ Arithmetic
- Communication :

  Communicating needs

  Express ideas and opinions

- Job Related Skills :
  - ➢ Punctuality
  - ➢ Attendance
  - ➢ Task Completion - Attending to task and completing work on time.
- Work Attitude :
  - ➢ Self – dependence
  - ➢ Value of work
  - ➢ Emotional Independence
- Communication

  Communicating needs, feelings

  Expressing ideas and opinions

IEP : Example (I)

Individual Educational Program is developed in the basis of the child's assessment. It contains his strengths, weaknesses, the objectives and evaluation procedures.

Male child

Age – 12 yrs.

IQ – 52

ADL

Child Age 12 yrs IQ 52

Sr. No.	Present Level of Performance	Annual Goal	Short Term Objective	Evaluation
1.	Cuts vegetables makes tea, kneads dough.	The student will be able to plan and cook nutritionally balanced meals.	Outcome : Student will plan and cook break fast, lunch, and dinner for five consecutive days. Will also purchase the necessary groceries.	Will independently cook two items for break fast, three items for lunch and two items for dinner for three people.
2.	Can thread the needle and do tacking.	The students will be able to mend clothing and sew on buttons.	Will choose matching colour to sew and do hemming and backstitch.	Student will mend tears and seams in pants, and shirts.

Example (II)

Functional Reading :

Diagnosis – MR

Child "A" Age 9 yrs IQ 70

Teaching Reading and Comprehension

The following are suggestions for methods and activities that may be helpful in teaching reading comprehension :

9. Understanding basic vocabulary is an important initial step in improving comprehension skills. Helping students develop branching trees by clustering words according to association is one technique to improve word comprehension. For example the word "ball" can be associated with "catch" and "throw." As

students begin to learn words in clusters, these words become cues for other associated words.

10. It is important to teach learners vocabulary words that lend meaning to a paragraph by describing when things occur. Initially teachers should present words such as "to begin with next, after that and finally", helping the students to follow the organization of the story.

11. The ability of students to identify key words and main ideas in a sentence or paragraph is an important skill. Color coding words or underlining main ideas can help direct the student's attention to relevant stimuli.

12. After students read stories, teachers can provide them with phrases that describe what the story was about. After a number of trials, teachers can provide multiple phrases, requiring the students to choose the one that best fits the story.

1.6 ORTHOPEDIC DISABILITIES

Educational Implications

So long as children have a normal intelligence and the orthopedic implications are minor that can easily be taken care in the regular class, they can be integrated in the mainstream with no curricular adaptations whatsoever e.g. the children with polio. However not al orthopedic conditions are like this. When the disability demands specific type of interventions for giving the children a normal or near normal life, certain curricular adaptations have to be developed.

For Children with CP the Specific Curricular needs are as follows

A   Academic Areas

Perceptual – Motor Activities

Activities for

d)   Visual Memory e.g. with close eyes name three things you saw in box, or reproducing block designs etc.

e)   Visual Discrimination e.g. find the small cup or find the odd one out.

f)   Visual figure – ground (selective attention) e.g. from the picture of the circus show me all the tigers, those in blue shirts etc.

g)   Visual – motor integration e.g. picking up small objects, coloring, joining dots etc.

h)   Visual Spatial – eg. show me the boy is 'up' far, besides, left, right etc.

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14.   a)   Auditory Memory eg. reciting poems/sings learning language etc.

        h)   Auditory Discrimination – listening to instructions and following them eg. give me the red plate not the blue one – or which word does not rhyme with cut,: hut mat rut.

        i)   Auditory figure ground – amidst a noisy environment listening to a story and answer question on it.

15.   Mobility training i.e. use and care of crutches, calipers, and such other mobility aids.

16.   Communication – those unable to use regular language have to use alternative mode of communication like Blissymbolics, the Makaton etc. Yarning and therapy in Speech too would help those with articulation and voice defects.

17.   Development of self reliance and confidence through work experiences must be an integral past of the curriculum.

18.   Use of writing devices for those with fine motor problems and the use of Computer Assisted Devices (CAD) is strongly recommended.

19.   Development of Social Skills – by simulations and first hand experiences are necessary.

For those with Spine Deformities

8.   Sensory Training – to handle the loss of sense of touch.

9.   Toilet Training

        a)   training in "emptying" the bladder and "bowel" by applying pressure at certain points, periodically.

        b)   Related hygiene

        c)   Use and disposing of pads during menstruation at regular intervals.

10.   Development of the environmental awareness.

B. Non – Academic Areas

11.   Training in motor – coordination by physic-therapists to enable the child to develop gross motor skills to walk, run etc. or use the mobility aid/devise.

12.   Training in ADL activities by occupational therapists e.g. brushing, dressing, bathing, eating etc.

13. Speech therapy when organs of speech are involved to help in voice training, articulation etc.

14. Training in chewing food, swallowing of food.

15. Sensory training for a sterognosis is common among those with upper limbs involvement (i.e. Poor memory of shape and texture of objects).

1.7 OTHER DISABILITIES :

Learning Disabilities (Ld) , Attention Deficit Disorder (Add), Attention Deficit Hyperactivity Disorder (Adhd)

Educational Implications

Most students with LD demonstrate some degree of attention deficits, hence the curriculum planning for students with LD, ADD (Attention Deficit Disorder) and ADHD (Attention deficit with Hyperactive Disorder) has been taken together. Paying attention to a task till its completion is very challenging for students with LD, ADD & ADHD. A failure in learning occurs because of inability to sustain attention till task completion. Therefore to help students focus and sustain attention on a task during seat work.:

- Make sure students have understood the instructions before making them do a task.

- Give a student only that much work that he can manage without great difficulty.

- In case he needs the attention of the teacher, give him some work he can do independently and which he likes.

- Give positive reinforcement every time the child is "on-the task".

- Use a timer

- Use quiet corners for seat work.

Study buddies could be used to help the students remain attentive and on task.

Reading Skills in Learning Disability

Reading is a process where by one accesses verbal information through the medium of presented symbols. To read efficiently, therefore one needs a sound understanding of the symbolic nature of the language i.e. its sound system to form words, sentences and paragraphs. Problems in reading arise because of a poor perceptual maturity or poor language skills. The following is suggested to deal with such problems –

13. Providing learners with an outline of the subject matter they are about to read. This helps them anticipate what to look for in their reading. Special educators

can develop these outlines by asking the teachers what topics in the readings are considered most important. Partially completed outlines can be provided for students to complete. This technique also helps students discriminate the important points in reading.

14. Teaching students key vocabulary in content area lessons can assist them in comprehending class lectures and scanning more difficult reading materials. These words can be taught using sight word techniques such as pairing the word with a corresponding picture.

15. Having peers tape-record chapters, can provide learners with another modality for covering the assignments. Peer tutors can also assist mildly retarded learners in studying for tests or completing assignments.

16. Teaching good study and note taking skills can be a great help to mainstreamed learners. Criscoe and Gee (1984) have suggested teaching the "survey, question, read, recite, review" approach. Basically, students are taught to survey the material briefly, locating the main points. They then convert the main points to questions that may help to increase their comprehension. At that point, they read until they can answer each question, recite the answers, and finally review after all questions have been answered.

17. Memory aids are an important set of skills for weak learners. Criscoe and Gee (1984) have suggested some aids such as (1) poetic devices – "thirty days hath September"; (2) linking techniques-linking words to form a mental image; and (3) location techniques-visually "walking through" the exercise.

18. Many learning disability students may not perform well on content based tests because of their deficits in reading (Bruno & Newman, 1985). Special educators could assist regular education teachers in developing alternate projects that assess student's knowledge, yet do not rely solely on reading ability.

Writing Skills

Those children with reading problems also have problems in writing. These could be because of poor visuo motor integration, poor language skills, or poor memory for spelling correctly. Suggested here are activities that foster writing skills, note taking, and in some instances creative writing to help these learners become more independent.

17. The microcomputer can be a tremendous help to LD children practicing written expression. Word processing packages (e.g. BANK STREET WRITER from Broderblind Software, Inc.) can assist learners who previously have found writing too difficult because of severe deficits in handwriting, spelling, punctuation, and other skills.

18.   Providing students with a list of words they can use to form sentences can be a meaningful exercise for those who lack an adequate vocabulary.

19.   Providing students with incomplete sentences that they are required to finish by supplying the main idea, can help them to complete their thoughts. The procedure would be to gradually fade the numbers of words provided by the teacher.

20.   For students whose experiences are limited, organizing groups to share ideas for a story can be a helpful way to generate content. Teams of students can work together to make up the story.

21.   Teaching manuscript writing is easier to master than cursive writing, however, it is less versatile. The best practice may be to match the technique best suited to each student.

22.   Hagin (1983) has suggested an approach that combines both manuscript and cursive writing. Manuscript letters are connected using waves, pearls, wheels, and arrows. Students practice at the chalkboard and on acetate sheets placed over printed models.

23.   Commercially produced methods for teaching cursive writing may provide teachers with an effective, structured program (e.g. Barbe, Lucas, Hackney, Braun, & Wasylyk 1984).

24.   Reading and spelling are so closely related they should be emphasized together as much as possible. For example, students can identify words in their readings that they have learnt to spell and write.

Math Strategies

Since with some LDs, learning problems encompass all areas of academic learning, math is another area of concern. Problems faced here are because of perceptual or language comprehension deficits, where reading the numbers correctly, writing them in the correct column performing the right operation and comprehending the problem become difficult. Some suggested. solutions to these problems are -

15.   **Allow a choice of paper.** Keep available in class some graph paper that is already 3-hole punched. Require students to show their work and write problems neatly, either: (a) on regular paper with two or three lines of space between problems; (b) on lined notebook paper, thin lined or wide-lined held side ways; or (c) on graph paper.

16.   **Reduce the number of problems that you assign.** There is no need to assign every problem on a page to assess your student's understanding or provide practice. Allow students to do few problems required to be written neatly, spaced well, with rough work shown.

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17. **Avoid anxiety of timed tests of basic facts**. There are a number of students (ADD and learning disabled) who have extreme difficulty memorizing basic facts. Let them respond orally if writing is difficult.

18. **Color highlight** processing signs for students who are inattentive to change in operational signs on a page.

19. **Color dot** the ones (units) column to remind students where to begin computation.

20. **Use mnemonics** (memory devices) to help with recall of steps. Examples: Steps of long division can be remembered by "dad, mother, sister, brother" or "Dear Miss Sally Brown" (for divide, multiply, subtract, bring-down).

21. Familiarize students with mathematical language eg. Divided equally, ten times more, the sum of etc.

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