**UNIT ONE  
1. DEFINITION OF LEARNING DISABILITY/DIFFICULTY**

IDEA 2004 defines a specific learning disability (SLD) as:

A disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, that may manifest itself in the imperfect ability to listen, think, speak, read, write, spell, or do mathematical calculations, including conditions such as perceptual disabilities, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia.

Specific learning disability does not include learning problems that are primarily the result of visual, hearing, or motor disabilities, of mental retardation, of emotional disturbance, or of environmental, cultural, or economic disadvantage.

These disorders are intrinsic to the individual presumed to be due to the 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 cultural influences such as cultural differences, insufficient or inappropriate instruction, they are not the result of these conditions or influences.

Have you tried? That is great! From the definition given above, the following main points can be inferred:

* The problem is heterogeneous or varied. People with learning disabilities show variations in their behavior
* Students with learning disabilities may have associated social and behavioral difficulties
* Learning disabilities occur across life span
* Extrinsic causes for academic problems can exist concomitantly with intrinsically caused learning disabilities

By definition, children with learning disabilities:

* Are of normal intelligence or above. A severe discrepancy between ability and achievement.
* Have difficulty in at least one academic area and usually several
* Have no other diagnosed problem such as mental retardation that is causing the difficulty
  1. **Learning Disabilities, Other Disabilities, and Academic Achievement**
* Learning disabilities are one of the many factors which could cause academic underachievement. The relationship among learning disabilities, other disability areas, and academic achievement can be presented in the diagram under here:

**Extrinsic Conditions**

* Lack of opportunity to learn
* Cultural disadvantage
* Economic disadvantage
* Inadequate instruction

**Intrinsic Conditions**

* Intellectual disability
* Sensory handicaps
* Serious emotional disturbance
* Learning disabilities

**Academic Underachievement**

**1.2 Differentiating Learning Disabilities from Learning Difficulties**

* Many students have *learning difficulties, which may stem from* vision, hearing, health, or social-emotional issues, or lack of ability or opportunity. In contrast, the term learning disabilities is specifically reserved for students who have a clear discrepancy between ability and achievement that cannot be explained by these factors.
* This discrepancy typically has been longstanding in the individual and is attributed to neurological disorders that remain for the life of the individual. Manifestations include the student who may:
* Have difficulty with the speed at which words are recognized and passages are read, yet given extra time can process and comprehend the material adeptly;
* produce well organized, insightful essays, but may need a Proof reader to spot the many misspellings, insertions and omissions;
* Be a strong and fluent reader, yet find it virtually impossible to take notes in class because of the rapid organization of auditory information that such a task requires. Students with learning disabilities vary widely in their pattern of strengths, weaknesses, and compensatory skills.

**1.3 Determination of Eligibility**

* In order to find a student eligible for special education and related services, the specific criteria must be satisfied.
* According to the regulations, SLD do not include learning problems that are primarily the result of visual, hearing, or motor disabilities, of intellectual disabilities, or of emotional disabilities.
* When determining special education eligibility and if the student is found eligible, the IEP team should consider and address educational needs that significantly impact the child’s progress in the general education curriculum.
* The IDEA, 2004 requires that each student who receives special education and related services have an Individualized Education Program (IEP).
* The IEP specifies the student’s individual educational needs and the special education and related services necessary to meet those needs.

**1.3.1. The Individualized Education plan (IEP) Development**

**Present Level of Academic and Functional Performance (PLOP)**

* The PLOP is a narrative description of the student’s present levels of academic achievement and functional performance.

**Goals**

* The goals serve as a road map for the upcoming year. They should be achievable in one year. Goals must be meaningful and measurable.
* **Progress Reports**
* A student’s progress on each IEP goal must be
* Monitored and regularly reported to the parents.
* **Special Education, Related Services and Supplementary Aids and Services**
* The IEP team must list the special education related services and supplementary aids and services that will be provided to the student.
* **Related services** are defined as services the student needs to benefit from special education. Common examples include speech and language pathology, occupational therapy, interpreting services and psychological services.
* **Supplementary aids and services** are additional supports or services (other than special education and related services) that a child needs to be educated with nondisabled children to the maximum extent appropriate. The supplementary aids and services could include modifications to the curriculum or classroom supports and accommodations
* **Accommodations**
* Accommodations are considered to be “changes to the delivery of instruction, method of student performance, or method of assessment that do not significantly change the content or conceptual difficulty level of the curriculum” (Miller, 2009, p. 458).
* **Modifications**
* Modifications are generally understood to be adaptations that “involve changes to the curricular content, changes to the conceptual difficulty level of the curriculum, or changes to the objectives and methodology. Adaptations typically involve more significant changes or modifications to the instructional process, than do accommodations” (Miller, 2009, p. 466).
* **Placement and the Least Restrictive Environment**
* This placement for the delivery of special education services is determined based on the needs of the student as defined by the present levels of performance.
* School divisions must offer a continuum of placement options starting from least restrictive to most restrictive. The continuum includes:
* General education classroom (inclusion)
* Special classes
* A combination of general and special classes
* Special schools
* Home instruction
* Instruction in hospitals and institutions

**1.4 Historical Development of the Field**

* The unexpected pattern of general strengths and specific weaknesses in learning was first noted and studied by physicians during the early twentieth century, thus giving the field its historical biomedical orientation.
* Doctors noted that children with learning disabilities were similar to adults and children with focal brain damage in that specific impairments in some areas of learning could occur without diminishing strengths in general cognitive ability.
* Although the clinical work conducted during the first half of the twentieth century recognized the existence of learning disabilities, such information had little influence on public school policies until the mid-1960s.
* At this time, behavioral scientists, educators,11 and parents expressed concern that some children had learning handicaps that were not being served effectively by general educational practices.
* At the same time, these children were ineligible for special education services because their characteristics did not correspond to any recognized categories of disability
  1. **Prevalence of Children with Learning Disabilities**

Recent evidences clearly show that the number of students with learning disabilities is increasing at an alarming rate when compared to other areas of exceptionality. More specifically, students with learning disabilities account for 50% of all students with other disabilities.

Have you attempted? Good. The following are commonly cited reasons for the dramatic increase in the number of Students with learning disabilities.

* Better research done by specialists concerning the problem
* Increased awareness of parents and teachers about the problem
* Learning disabilities gained full acceptance from government, parents, professionals, schools, etc.
* Children who were once misdiagnosed as having intellectual disability are now being recognized as having learning disabilities.
* Programs for learning disabilities have been expanded to include preschool children and adolescents
* Learning disabilities include children whose academic problems stem from environmental conditions
* Improvements in procedures of identification, etc.

The most current data, based on surveys conducted by the U.S. Census Bureau, report the prevalence of LD by age group: Among school-age children, parents report an incidence of 2.2 percent (1.8 percent ages 6–11 and 2.6 percent ages 12–17). This differs significantly from the number and percentage of students being provided special education due to LD (2.4 million, 5 percent of school enrollment) in the nation’s schools. This could be a result of many parents who respond to surveys not acknowledging that their child has LD. Highest prevalence is reported by adults age 18–24 (2.7 percent). Lowest prevalence is reported by adults 65 and older (0.7 percent). This age group would have attended school prior to the passage of federal special education laws, reducing the likelihood of being identified as having LD during school years.

* 1. **Contributing Factors for Learning Disabilities**

There are many contributing factors for learning disabilities. Here are some of them.

**(a)Brain Dysfunction:** the mind controls every process in an individual. Hence, a problem in the master of our physiology will cause a problem in intellectual and other learning processes. In this regard, studies made it clear that learning disabilities may result from a central nervous system dysfunction.

**(b) Alcoholism:** learning disabilities may appear with such a medical condition as fetal alcohol syndrome.

**(c) Genetics/Heredity:** heredity plays a role in shaping behavior. Research revealed that identical twins showed highest frequency of dyslexia than fraternal twins. Similarly, studies yielded rich evidence showing the fact those learning disabilities can be inherited.

**(d) Environmental Deprivation and Malnutrition:** there is a saying which goes “you are what you eat” which emphasizes the importance of nutrition in the development of behavior. Severe malnutrition at an early age can affect the central nervous system and hence the learning and development of the child. In addition, what a child experienced in the home, community school, etc. can affect attention and other psychological processes related to learning. In this connection, there is strong evidence that pollutants and teratogens cause learning disabilities.

**( e) Motivational and Affective Factors:** a child who failed to learn for one or another reasons tends to have low expectation of success, does not persist on tasks long enough and develops low self- esteem. These attitudes reduce motivation and create negative feelings about school work which in turn causes low academic performance.

**(f) Physical Conditions:** physical problems such as hearing defects, confused laterality, and spatial orientation, poor body image, etc. can inhibit individual’s ability to learn.

**1.7 Classification of Learning Disabilities**

Learning disabilities often encompass co-occurring conditions that can include problems in listening, concentrating, speaking, reading, writing, reasoning, math, social interaction, etc. Generally, professionals in the area classify learning disabilities into two broad groups. The first category is developmental learning disabilities in which individuals manifest problems in attention, memory, perceptual –Motor, thinking, language, etc. The second category is academic learning disabilities that include problems in reading, spelling, writing, arithmetic, etc. Diagrammatically, it can be summarized as follows:

**Learning Disabilities**

Developmental Learning Disabilities

Academic Learning Disabilities

Arithmetic

Hand writing

Memory

Attention disorder

Perceptual motor

Thinking Disabilities

Language

Disabilities

Reading

Spelling & written

**Unit Two**

1. **Characteristics of Individuals with Learning Disabilities**

Individuals with learning disabilities have the following characteristics.

(**a) Attention and Hyperactivity Disorders:**

* Attention-Deficit Hyperactivity Disorder is a condition that can make it hard for a person to sit still, control behavior, and pay attention.
* Diagnostic and Statistical Manual of Mental Disorders (4th ed. rev.) (DSM IV-TR), published by the American Psychiatric Association (2000). Based on these symptoms, three types of ADHD have been defined:
* **Inattentive ADHD.** The person can’t seem to get focused or stay focused on a task or activity. Many children with ADHD have problems paying attention.
* **Hyperactive-impulsive ADHD.** The person is very active and often acts without thinking
* **Combined ADHD.** The person is inattentive, impulsive, and too active

Children with the inattentive type of ADHD often exhibit the following characteristics:

* Do not pay close attention to details
* Can’t stay focused on play or school work
* Don’t follow through on instructions or finish school work or chores
* Can’t seem to organize tasks and activities
* Get distracted easily
* Lose things such as toys, school work, and books

**Combined ADHD**

* **Children with the combined type of ADHD have symptoms of both of the** types described above.
* They have problems with paying attention, with hyperactivity, and with controlling their impulses. Children with ADHD feel anxious, unsure of themselves, and depressed.
* ADHD causes LD.

In most cases, attention and hyperactivity disorders occur together with learning disabilities. Numerous studies indicate the existence of hyperactivity in those children with learning disabilities. Students with learning disabilities are characterized by attention problems which involve difficulties in coming to attention, problems in decision making and problems in sustaining attention.

**(b) Visual Perception, Perceptual -Motor and General Coordination Problems: -** many studies revealed that individuals with learning disabilities are likely to exhibit visual perceptual problems, such as problems in organizing and interpreting visual sensory stimuli than students who are average or above average readers. It is also found out that students with learning disabilities do have auditory perceptual problems than normal individuals of the same age. Furthermore, students with the problem have difficulties in the use of motor skills.

Many students with LD exhibit perceptual problems (Lerner, 2003). Perception does not pertain to whether a student sees or hears but rather to how that student’s brain interprets what is seen or heard. Perceptual disorders affect the ability to recognize stimuli received through sight, hearing, and touch, and to discriminate between and interpret the sensations appropriately. A child with a learning disability might not have any problems in these areas, or he might have deficits in any or all of them (Smith et al., 2004). For example, a student with a visual perception problem may see perfectly well the letters b-a-t written on the page. What the brain interprets them to be is t-ab.

Problems in auditory perception often include difficulties with perceiving sounds that are not attributable to a hearing loss (Kruger, Kruger, Hugo, & Campbell, 2001). For example, some students may have trouble understanding whether the word spoken was king or kin, hot or hut, fire or file.

**(c) Memory and Thinking Disorders:** research on short-term and long–term memory of students with learning disabilities has revealed that:

* + They have poor strategies for memorizing information
  + They have insufficient meta-cognitive skills for recalling information
  + They possess limited semantic memory capabilities

Children with learning disabilities have also impaired thinking; more specifically they have difficulties in the cognitive operations of problem solving, concept formation and association which made students to act before they think.

It is well documented that children and adolescents with LD have significant difficulties remembering academic information and nonacademic information, such as doctors’ appointments, homework assignments, multiplication facts, directions, and telephone numbers.

Teachers frequently comment that, with these students, it seems to be “in one ear and out the other,” which can be highly aggravating for teachers as well as parents (Gargiulo, 2004).

Teachers and parents also report that memory skills are inconsistent. For example, a student may know the multiplication facts on Thursday and then fail the test on Friday (Hardman et al.,

2005).

Parents often state that they cannot understand how their children can be so intelligent and forget such simple things. Early research in learning disabilities has documented that students with LD have a real deficit in memory (Hallahan & Kauffman, 2003). Teachers have long complained that children with LD have poor memory.

Several studies have suggested that students with LD have more deficits in memory than students without LD except in the area of long-term memory (Swanson, 1994). Students with memory deficits have difficulty retaining learned information, repeating information read or heard, following multiple directions, and performing tasks in the right sequence (Smith et al., 2004).

The memory difficulties faced by students are normally either in short-term memory (STM) or working memory (WM). STM involves the ability to recall information after a short period of time. Short-term memory tasks involve the recall, in correct order, of either aurally or visually presented information (such as a list of digits, letters, or pictures) shortly after hearing or seeing the items several times (Hallahan, 1999). Working memory requires that the individual retain information while simultaneously engaging in another cognitive activity.

According to Silver (2001), people with LD are more likely to have concerns with short-term rather than long-term memory. He explained that children and youth with these limitations need to concentrate on new information, and to repeat it continually, in order to keep it in short-term memory. If their attention is disrupted, the information may be lost (Bowe, 2005). Working memory is involved, for example, when we try to remember a person’s address while also listening to directions on how to arrive there (Swanson, 1994). Deficits in memory, particularly working memory, often translate into difficulties in the classroom. Success with reading and math seems to depend more on working memory than short-term memory. Working memory also appears to be crucial for word recognition and reading comprehension (Ashbaker & Swanson, 1996).

Although there are various theories as to why students with learning disabilities have difficulties with memory tasks, it appears that they do not use “strategies for remembering” the way their nondisabled peers do. For example, when presented with a list of words to memorize, most children will rehearse the names to themselves. They will make use of categories by rehearsing the words and grouping them together. Students with learning disabilities are not likely to use these names spontaneously (Hallahan & Kauffman, 2003). O’Shaughenessy and Swanson (1998) suggest that the problem is mainly with an inability to code new information for memory storage and a decreased motivation for difficult mental effort.

On a positive note, when children with learning disabilities are taught a memory strategy, they perform memory tasks as well as non learning-disabled students (Smith et al., 2004).

Students with learning disabilities will often demonstrate problems in cognition. Cognition is a broad term covering many different aspects of thinking and problem solving. Students with learning disabilities often exhibit disorganized thinking that results in problems with planning and organizing their lives at home (Hallahan & Kauffman, 2003).

According to Smith and colleagues (2004), students with problems in cognition may share the following characteristics:

• Make poor decisions

• Have trouble adjusting to change

• Make frequent errors

• Require concrete demonstrations

• Have delayed verbal responses

• Have difficulties understanding social expectations

• Require more supervision

• Have trouble getting started on a task

• Have trouble using previously learned information in a new situation

Students with learning disabilities often have problems with metacognition. Metacognition is defined as one’s understands of the strategies available for learning a task and the regulatory mechanisms needed to complete the task.

Metacognition has at least three components:

**Recognize task requirements.** Students with LD frequently have problems judging how difficult tasks can be. For example, they may approach the reading of highly technical information with the same level of intensity as reading for pleasure.

**Select and implement appropriate strategies.** Students with LD often do not come up with strategies to help themselves in and outside of school. For example, if asked to name ways in which they can help themselves remember to bring their homework into school the next day, they may not have any ideas, whereas the nondisabled peers will suggest writ-ing a note to themselves, putting the homework by the front door, and so on.

**Monitor and adjust performance.** Students with LD often have problems with comprehension monitoring. Comprehension monitoring is the ability to keep track of one’s own comprehension of reading material and to make adjustments to comprehend better while reading. For example, a student with LD may not have a good sense he does not understand what he is reading. Good readers are often able to make the necessary adjustments, such as slowing down or rereading difficult passages. Students with reading problems are also likely to have problems picking out the main ideas of paragraphs.

**(d) Social Relationship Problems:**

The literature suggests that to be socially accepted, students should be cooperative, share, offer pleasant greetings, have positive interactions with peers, ask for and give information, and make conversation (Gresham, 1982). Some children with LD have a real strength in the area of social skills. However, several characteristics of learning disabilities, such as those noted concerning language, can create difficulties in social and emotional life (Smith et al., 2004).

Although not all children with LD have social–emotional problems, they do run a greater risk than their nondisabled peers of having these types of problems. In the early years they are often rejected by their peers and have poor self-concepts (Sridhar & Vaughn, 2001).

A possible reason for these social–emotional problems is that students with LD often have deficits in social cognition. They may have the following characteristics:

• Misread social cues

• Misinterpret the feelings of others

• Not know when they are bothering others

• Be unaware of the effect of their behavior on someone else

• Be unable to take the perspective of others or put themselves in someone else’s shoes

Social skills deficits include the following:

• Acceptance by peers

• Difficulty making friends

• Being seen by peers as overly dependent

• Being less likely to become leaders

• Resolving conflict

• Managing frustrations

• Initiating or joining a conversation or play activities

• Listening

• Demonstrating empathy

• Maintaining a friendship

• Working in groups

Individuals with learning disabilities have problems in social adjustment and often they are rejected and neglected. Problems may be caused by students’ lack of knowledge about important social affairs, inability to learn from appropriate modeling, inability to read social cues and misinterpretation of the feelings of others.

**(e) Motivational Problems:** it is a well-established fact that motivation is a prerequisite for learning for it energizes the learner. However, students with learning disabilities found to be less motivated in their learning and experience repeated failure in their academics – a condition which creates a feeling of learned helplessness. As a result of this, they attribute success to luck and failure to lack of ability. Students with LD will often lose the motivation to succeed in school. As failure starts to become more prominent, they begin to take on an external locus of control. External locus of control is a motivational term whereby an individual believes that he no longer has control over his fate in life. People with external locus of control believe that they will have a good day or a bad day depending on how outside influences affect them. They feel powerless and no longer believe that they control their own destiny. This differs from people with an internal locus of control, who believe that they are “the captain of their ship,” that they control their successes and failures. Students with LD and external locus of control believe that their lives are dictated by luck or fate, rather than by their own internal factors such as determination, hard work, or ability.

**(f) Problems in Academic Areas:**

Children with learning disabilities often struggle with various areas of academic performance. During the elementary school years, a discrepancy between ability and achievement begins to emerge in students with learning disabilities.

Academic deficits for children with learning disabilities normally fall into the following areas: reading, mathematics, and written expression. Some children have problems in only one select academic area, while others may experience difficulties in all three.

* **Spoken language problems:** Students with learning disabilities often have difficulties with the mechanical and social uses of language (Hallahan & Kauffman, 2003).
  + Specific mechanical difficulties are often present in the three different areas (Gargiulo, 2004).
* **Syntax. Rule systems that determine how words are organized into sentences**
* **Semantics. Word meanings**
* **Phonology. The study of how individual sounds make up words**
* Students with learning disabilities usually exhibit problems in various aspects of the spoken language such as phonology, morphology, syntax, semantics and pragmatics.
* Language deficits are found in the areas of oral expression and listening comprehension.

1. **Oral Language Problems**

* Students with LD frequently experience difficulties with oral expression—a problem that can affect both academic and social interactions.

**Common problems associated with oral language**

* Choosing the appropriate word. Children with LD will often use a less appropriate word because the right word will not come to them.
* Understanding complex sentence structures
* Responding to questions
* Difficulties in retrieving words. The response rate of children with learning disabilities may be slower than that of their nondisabled peers, and they may speak more slowly.

1. **Listening Comprehension Problems**

* Listening problems can also be misinterpreted.

1. **Problems with Pragmatics**

* One aspect of oral expression that is receiving increased attention is pragmatics, the functional use of language in social situations.
* **Reading problems:** Reading provides a fundamental way for individuals to exchange information. It is also a means by which much of the information presented in school is learned. As a result, reading is the academic area most often associated with academic failure. Reading is a complex process that requires numerous skills for its mastery. Consequently, identifying the skills that lead to success in reading is extremely important.

There are serious problems experienced by students with learning disabilities for reading is so important to individual’s performance in most academic domains and to their adjustment to most school activities. Reading problems are known by various names such as dyslexia, corrective reader, and remedial readers.

* Reading difficulties are observed among students with learning disabilities more than any other problem area of academic performance.
* It is the most prevalent type of academic difficulty for students with learning disabilities. It is estimated that as many as 90% of students with learning disabilities have reading difficulties, and even the low estimates are approximately 60% (Bender, 2001).
* Clearly, problems with the reading process are very prevalent among students identified as having learning disabilities.
* However, the specific problems that they have in reading vary as much as the many components of the reading process (Hardman et al., 2005).
* These difficulties include, but are not limited to oral reading, reading comprehension, word recognition skills, and reading habits.

1. **Oral Reading Difficulties**

* Many students with learning disabilities have difficulties with reading fluency (Mercer, Campbell, Miller, Mercer, & Lane, 2000).
* Reading fluency, most frequently defined as the rate of accurate reading (correct words per minute),

According to Salvia and Ysseldyke (1998), common oral reading problems include the following:

* **Omissions. The student skips individual words or groups of words.**
* **Insertion**. The student inserts one or more words into the sentence being orally read.
* **Substitution. The student replaces one or more words in the passage by one or more** meaningful words.
* **Gross mispronunciation of a word. The student’s pronunciation of a word bears little** resemblance to the proper pronunciation.
* **Hesitation. The student hesitates for two or more seconds before pronouncing a word.**
* **Inversion. The student changes the order of words appearing in a sentence.**

Disregard of punctuation. The student fails to observe punctuation; for example, may not pause for a comma, stop for a period, or indicate a vocal inflection, a question mark, or an exclamation point.

1. **Reading Comprehension Deficits**

* Students with learning disabilities often have difficulties with reading comprehension (Gersten, Williams, Fuchs, & Baker, 1998).
* These children often lack the skills required for understanding text and have poor word-analysis skills.
* Reading comprehension refers to a student’s ability to understand what he or she is reading.
* Some students with reading comprehension difficulties are able to read a passage so fluently that you might assume they were highly proficient readers.

According to Salvia and Ysseldyke (1998), there are six different types of reading comprehension skills:

* **Literal comprehension. The student reads the paragraph or story and is then asked questions** based on it.
* **Inferential comprehension. The student reads a paragraph or story and must interpret what has** been read.
* **Listening comprehension. The student is read a paragraph or story by the examiner and is then** asked questions about what the examiner has read.
* **Critical comprehension. The student reads a paragraph or story and then analyzes, evaluates, or** makes judgments about what he or she has read.
* **Affective comprehension. The student reads a paragraph or story, and the examiner evaluates** his or her emotional responses to the text.
* **Lexical comprehension. The student reads a paragraph or story, and the examiner assesses** hisor her knowledge of vocabulary words.

Here are some common reading comprehension problems of children with LD:

* Difficulties recalling basic facts (unable to answer specific questions about a passage, such as What was the dog’s name in the story?)
* Difficulties recalling sequence (unable to tell the sequence of the story that was read)
* Difficulties recalling the main theme (unable to recall the main topic of the story)

1. **Problems with Word Recognition**

* Students with learning disabilities often have difficulties with word recognition, which relates to the student’s ability with respect to sight vocabulary.
* *A student learns the correct pronunciation of letters and words through a variety of experiences. The more exposure a student has to specific words and the more familiar those words become, the more readily he or she recognizes those words and is able to pronounce them correctly.*

In order to identify written words, we use a number of different skills. Here are some of the most important word analysis skills:

* The ability to associate sounds with the various letters and letter combinations used to write them (phonic analysis)
* Immediately recognizing and remembering words (sight-word reading)
* Using the surrounding text to help figure out a specific word (using context)

According to Gargiulo (2004), here are common word recognition errors:

* **Omissions. Omitting a word (Tom saw [a] cat.)**
* **Insertions. Inserting words (The dog ran [fast] after the cat.)**
* **Substitutions. Reversing letters in a word (no for on, was for saw)**
* **Mispronunciations. (Mister for miser)**
* **Transpositions. Reading words in the wrong order (She away ran instead of she ran** away.)
* **Unknown words. Hesitating for 5 seconds at words they cannot pronounce**
* **Slow choppy reading. Not recognizing words quickly enough (20 to 30 words per** minute)

1. **Poor Reading Habits**

* Children with reading difficulties often have poor reading habits.
* As a teacher, it is critical that you be aware of these actions when watching your students read on a daily basis.
* Gargiul (2004) lists some behaviors that are exhibited by children with poor reading habits.
* **Tension movements. Frowning, fidgeting, using a high-pitched tone of voice**
* **Insecurity. Refusing to read, crying, attempting to distract the teacher**
* **Loses place. Losing place frequently**
* **Lateral head movements. Jerking head**
* **Holds material close. Deviating extremely from 15 to 18 inches**

Dyslexia is a type of reading disorder in which the student fails to recognize and comprehend written words.

Dyslexia is a severe impairment in the ability to read, despite normal intelligence, normal opportunities to read, and an adequate home environment.

Although the precise organic cause of dyslexia is unknown, it is generally thought that this problem results from difficulties with phonological awareness—a lack of understanding of the rules that govern the correspondence between specific sounds and certain letters that make up words (Lyon & Moats, 1997; cited in Gargiulo, 2004, p. 216).

Various types of reading disorders have been recently cited by the American Academy of Special Education Professionals’ Educator’s Diagnostic Manual of Disabilities and Disorders (2007).

* **Direct Dyslexia. Direct dyslexia refers to the ability of the individual to read words aloud** correctly, yet not comprehend what he or she has just read.
* **Dyseidesia Dyslexia. Such an affected individuals will have poor sight-word** vocabularies and will rely on using time consuming word attack skills (a phonetic approach) to decode many words. As a result, students with this condition will read laboriously.
* **Dyseidetic Dyslexia. Children with the dyseidetic type of dyslexia are able to sound out** individual letters phonetically but have trouble identifying patterns of letters in groups.
* **Dyslexia with Dysgraphia (*Deep Dyslexia). With this condition, a person has a problem*** in writing letters and words, grasping word-meanings, integrating the sounds of letters, and in pronouncing unfamiliar and, sometimes, even familiar words.
* **Dyslexia without Dysgraphia (*Pure Dyslexia).*** This disorder occurs when a person has problems reading but not writing.
* **Dysnemkinesia Dyslexia. Dysnemkinesia involves minimal dysfunction of the area of** the motor cortex involved in letter formation.
* **Dysnomia. A type of dyslexia specifically associated with difficulties in naming and** naming speed.
* **Dysphonetic Dyslexia. Dysphonic readers have difficulty relating letters to sounds, so** their spelling is totally chaotic.
* **Literal Dyslexia (*Letter Blindness). With this condition, a person has difficulty*** identifying letters, matching upper case letters with lowercase, naming letters, or matching sounds with the corresponding letters.
* **Mixed Reading Disability Dyslexia (*Alexic Reading Disability). Children with mixed*** reading disabilities have both the dyseidetic and dysphonic types of reading disorder.
* **Neglect Dyslexia. This condition occurs when a person neglects the left or the right side** of words, a problem particularly highlighted in reading long words.
* **Phonological Dyslexia. This disorder occurs when an individual has difficulty in** converting letters to their sounds. They can read words that are already familiar to them, but have trouble reading unfamiliar or novel words.
* **Primary Dyslexia. This is a dysfunction of, rather than damage to, the left side of the** brain (cerebral cortex) and does not change with maturity.
* **Semantic Dyslexia. This occurs when a person distorts the meaning of a word or** incorrectly readsa word because of the confusion in the meaning of the given word.
* **Spelling Dyslexia. This occurs when a person has problems reading all types of words** and sometimes has trouble identifying individual letters.
* **Surface Dyslexia. This condition occurs when a person can read words phonetically but** has problems with whole word recognition.
* **Trauma Dyslexia. This condition usually occurs after brain trauma or injury to the area** of the brain that controls reading and writing.
* **Visual Dyslexia. People with this condition usually cannot learn words as a whole** component.
* **Writing problems:** Many individuals with LD exhibit deficits in written language (Hallahan, Kauffman, & Lloyd, 1999). Writing is a highly complex method of expression involving the integration of eye–hand, linguistic, and conceptual abilities.
* Individuals with learning disabilities have difficulties in hand writing, spelling, composition, productivity, text structure, sentence structure and word usage. Students may show problems in one or more of the mentioned difficulties.

The term written language refers to a variety of interrelated graphic skills.

1. **Composition. The ability to generate ideas and to express them in an acceptable grammar, while** adhering to certain stylistic conventions
2. **Spelling. The ability to use letters to construct words in accordance with accepted usage**
3. **Handwriting. The ability to execute physically the graphic marks necessary to produce legible** compositions or messages (Hallahan et al., 1999)

Students with written language problems often exhibit the following characteristics:

* Feel overwhelmed by the idea of getting started
* Struggle to organize and use the mechanics of writing
* Struggle to develop their fluency
* Have difficulties spelling and constructing written products in a legible fashion

1. **Handwriting Difficulties**

* Handwriting refers to the actual motor activity that is involved in writing.
* Dysgraphia, the learning disability associated with written expression, entails writing skills that fall substantially below those expected given the individual’s age, IQ, and education.
* Dysgraphia is the inability to perform motor movement, in other words, extremely poor handwriting.

Three different types of writing disorders have been recently cited by the American Academy of Special Education Professionals’ Educator’s Diagnostic Manual of Disabilities and Disorders (2007).

* **Dyslexic Dysgraphia. With this disorder, spontaneously written text is illegible, especially when** the text is complex. Oral spelling is poor, but drawing and copying of written text are relatively normal. Finger-tapping speed (a measure of fine-motor speed) is normal
* **Motor Dysgraphia. With this disorder, both spontaneously written and copied text may be** illegible, oral spelling is normal, and drawing is usually problematic. Finger-tapping speed is abnormal.
* **Spatial Dysgraphia. Individuals with this disorder display illegible writing,** Oral spelling is normal. Finger-tapping speed is normal, but drawing is very problematic.

1. **Spelling Problems**

* Spelling is the ability to use letters to construct words in accordance with accepted usage.

**Analysis of Spelling Skills. Several questions should be addressed before one begins to analyze** a child’s spelling abilities (Pierangelo & Giuliani, 2005).

* **Does the child have sufficient mental ability to learn to spell?**
* **Are the child’s hearing, speech, and vision adequate?**
* **What is the child’s general level of spelling ability according to teacher comments, past evaluations, or standardized tests?**
* **Auditory acuity or discrimination problems. The child does not hear subtle differences in, nor** discriminate between, sounds and often leaves vowels out of two-syllable words.
* **Auditory–visual association. The child uses a synonym such as house for home in spelling.**
* **Auditory–visual associative memory. The child takes wild guesses with little or no relationship** between the letters or words used and the spelling words dictated, such as spelling phe for home.
* **Visual memory problems. The child visualizes the beginning or the ending of words but omits** the middle of the words; for example, spells hppy for happy.
* **Visual memory sequence. The child gives the correct letters but in the wrong sequence, for** example, writes the word the as teh or hte.
* **Visual discrimination problems. The child inverts letters, writing u for n, m for w.**
* **Visual memory. The child spells words phonetically that are nonphonetic in configuration, for** example, tuff for tough.
* **Problems in Mathematics:**
* Researchers estimate that about one out of every four pupils with LD receives assistance because of difficulties with mathematics.
* Students with learning disabilities may have problems in both math calculations and math reasoning.
* These students often have a number of problems in mathematical thinking (Hunt & Marshall, 2005).
* Mathematical thinking is a process that begins early in most children.

Mathematics involves many different abilities

* Estimating
* Doing computational skills
* Solving problems
* Understanding measurement
* Using mathematics for prediction
* Creating and reading graphs and charts
* It is usually known as dyscalculia. It may include problems in one or more of the following areas.These are:
* Visual perception – differentiating numbers or copying shapes
* Memory – recalling math facts
* Motor functioning – writing numbers legibly or in small space
* Language - relating arithmetic terms to meaning, functions or vocabulary
* Abstract reasoning - solving word problems and making comparisons
* Meta-cognition - identifying, using, and monitoring the use of strategies to solve problems.

**Dyscalculia**

* Arithmetic involves recognizing numbers and symbols, memorizing facts, aligning numbers, and understanding abstract concepts such as place value and fractions.
* Any of these may be difficult for children with developmental arithmetic disorders, also called dyscalculia, which refers to selective impairment in mathematical thinking or in calculation skills

Various types of mathematical disorders have been cited by the American Academy of Special Education Professionals’ Educator’s Diagnostic Manual of Disabilities and Disorders (2007).

* **Basic Number Fact Disorder. Individuals with a Basic Number Fact Disorder have** problems memorizing and retaining basic arithmetic facts
* **Calculation Disorder. By definition, calculation is problem solving that involves** numbers or quantities. For example, when calculating 8 + 2, they may respond 6, because they subtracted rather than added the two numbers.
* **Mathematical Abstraction Limitation Disorder. Individuals with this disorder do not** possess the ability to function at a high level of mathematical abstraction.
* **Mathematical Estimation Disorder. Children with dyscalculia seem to have an** impaired sense of number size.
* **Mathematical Language Disorder. some students with** LD are particularly hampered by the language aspects of math, resulting in confusion about terminology,.
* **Mathematical Measurement Disorder. Individuals with this disorder may have** difficulty with concepts involving measurements,
* **Mathematical Navigation Disorder. Children with this disorder can usually learn the** sequence of counting words, but may have difficulty navigating back and forth, especially in twos, threes, or more.
* **Mathematical Organization Disorder. Individuals with this disorder may have an** inability to organize objects in a logical way.
* **Mathematical Sequencing Disorder. People with this disorder have trouble with** sequence, including left/right orientation.
* **Symbolic Mathematical Operations Disorder. Individuals with this disorder may find** it especially difficult to translate between number words, where powers of ten are expressed by new names (ten, hundred, and thousand) and numerals (where powers of ten are expressed by the same numerals but in terms of place value).
* **Temporal/Monetary Math Disorder. People with this disorder tend to have difficulties** in topics relating to time, telling time, keeping track of time, estimating time, monetary concepts, and counting money..
* **Visual–Spatial Math Disorder. Students with this disorder have disturbances in visual–**spatial–motor organization,
* **Written Symbol System Disorder. According to Garnett (2000), many younger children** who have difficulty with elementary math actually bring to school a strong foundation of informal math understanding.

**Unit 3: Identification and Assessment of Learning Disability/Difficulty**

**3.1. Identifying Students with Learning Disabilities**

Determining the scope of learning disability and giving clear definition is a challenge for scholars which complicate the identification effort. In addition, differentiating the learning disability subset of educational underachievement from the other subsets of underachievement is a major problem in identifying individuals with learning disabilities. Despite these, efforts of identification have been going on. Early identification input is usually gained from teachers as well as parents. And this primary action should be further assisted by specialists in the area if a learning disability is suspected. Evaluating whether or not a child has a learning disability is a difficult task and should follow rigorous procedures. Here is a guideline showing how to make identification.

|  |  |
| --- | --- |
| **Activities by Concerned Bodies** | **Indicators of Learning Disabilities** |
| 1. Teachers and parents observe the student | Student appears frustrated with academic tasks and may have stopped trying |
| **Screening by Teachers and School Team** | |
| 2. Check classroom work products | Work is poor. Teacher feels that the student is incapable of doing better |
| 3. Administration of group intelligence  Tests | Usually tests show average or above average intelligence |
| 4. Administer Group achievement tests | Students perform below peers in one or more areas or scores lower than would be expected according to group intelligence tests |
| 5. Vision and hearing screening | Results do not explain academic difficulties |
| **Pre- referral** | |
| 6. Teacher implements suggest on from  school based team | Students will experience frustration and academic difficulty despite interventions |
| **Referral** | |
| 7. Individualized intelligence test  Administration | Students show average or above average intelligence |
| 8. Individualized achievement test  Administration | Discrepancy between expected and actual performance |
| 9. Behavior rating scale | Presence of emotional/behavioral problems can not explain learning problems |
| 10. Anecdotal records | Academic problems appear throughout school time |
| 11. Curriculum based assessment | Students are facing problems in learning the curriculum |
| 12. Direct observation | Students experiencing frustration/difficulty |
| 13. Ecological assessment | Students environment does not cause problem |
| 14. Portfolio assessment | Inconsistent/poor work |

**Team will determine that the student has a learning disability and needs special education**

In general, in labeling students as having learning disabilities, the following points are taken into account:

* **Inclusionary criterion**: children with learning disabilities show a statistically significant difference between potential and actual achievement as measured by formal and informal assessment.
* **Exclusionary criterion**: learning disability may not result from visual and hearing impairment, intellectual disability, serious emotional disturbance, or cultural differences. In addition, there are tasks on which children with learning disabilities cannot perform as their normal peers.
* **Need criterion**: if a child does not learn without specialized support unlike the majority of other children, he/she qualifies for learning disability. In the absence of specialized procedures, the disability prevents students from learning effectively.

For a student to be identified as having a specific learning disability and be eligible for special education under IDEA 2004, the following criteria must be met:

* The child does not achieve adequately for the child’s age or meet state-approved, 1. grade-level standards in one or more of the following areas when provided with learning experiences and instruction appropriate for the child’s age or state-approved, grade-level standards: oral expression, listening comprehension, written expression, basic reading skills, reading fluency skills, reading comprehension, mathematics cal­culation, or mathematics problem-solving.
* The child does not make sufficient progress to meet age or state-approved, grade-2. level standards in one or more of the areas identified above when using a process based on the child’s response to scientific, research-based intervention .**or**
* The child exhibits a pattern of strengths and weaknesses in performance, achieve­ment, or both, relative to age, state-approved, grade-level standards, or intellectual development, that is determined by the Planning and Placement Team (PPT) to be relevant to the identification of a specific learning disability, using appropriate assess
* The PPT determines that its findings noted above are not primarily the result of any of the following: a visual, hearing or motor disability; an intellectual disability; emotional disturbance; cultural factors, environmental or economic disadvantage; or limited English proficiency.
* To ensure that underachievement in a child suspected of having a specific learning 4. disability is not due to lack of appropriate instruction in reading or math, the PPT must consider, as part of the evaluation, data demonstrating that:

a. prior to, or as part of the referral process, the child was provided appropriate instruction in regular education settings, delivered by qualified personnel; and

b. data-based documentation of repeated assessments of achievement at rea­sonable intervals, reflecting formal assessment of student progress during in­struction, which was provided to the child’s parents.

* A child must not be determined to be a child with a disability if the determinant fac­5. tor for that determination is:

a. lack of appropriate instruction in reading, including the essential compo­nents of reading instruction.

b. lack of appropriate instruction in math; or

c. limited English proficiency.

**Checklist for General Warning Signs**

Use the following checklist to help you to identify areas of weakness regarding your students.

Check each of the warning signs that apply to the student being considered. Each of these statements is followed by a set of capital letters that will help you to further identify specific areas of processing weakness. The capital letters represent the following:

V: Visual VS: Visual Spatial A: Auditory

Ma: Math W: Written At: Attention

O: Organization L: Language M: Memory

**Checklist for General Warning Signs**

* Does the student seem disorganized in his or her thinking? (O, A)
* Are there reversals, inversions, or transpositions in reading and writing beyond
* What you would usually see at your grade level? (V,VS,W)
* Is the student slow to respond when you give a direction or ask for an oral response? (A,L)
* Is the student confused or slow to respond when asked to complete written work? (A,L,W)
* Is written work often not completed within a time limit? (W,O)
* Does the student consistently have difficulty with personal organization? (O)
* Is oral language often rambling or disjointed? (A,L)
* Is expressive language in written form often rambling or disjointed? (At,L,O)
* Does the student have difficulty organizing and/or sequencing his or her thoughts when given a general topic or task? (At,O,W)
* Does the student have difficulty remembering what was just said or seen? (A,V, At, M)
* Does the student have difficulty remembering stored facts or coming up with the appropriate word without prompting? (L,M)
* Is the student restless during videos or visual presentations? (V)
* Does the student use both left and right hands in motor activities? (VS)
* Does the student tune out in noisy environments (may be viewed as a daydreamer)? (A)
* Is the student an adequate oral speller, but a poor written speller? (V)
* Does the student appear to listen, but process the information heard inaccurately or out of sequence? (A)
* Does the student have difficulty learning sounds and sound patterns (phonemic awareness, phonics, linguistic method)? (A)
* Does the student have difficulty making decisions? (At, O) (At, O)
* Does the student act impulsively….speak before thinking…act before thinking….answer before considering possibilities? (At)
* Does the student have difficulty making and keeping friends? (At,L)
* Does the student find social situations difficult? (L)
* Does the student misperceive social situations? (At, L)
* Does the student have difficulty discriminating size, shape or colour? (V,VS)
* Does the student have a poor sense of time? (VS)
* Does the student have difficulty with time concepts such as days, weeks, months, years? (VS,O)
* Is the student clumsy and does he or she show poor visual-motor co-ordination? (VS)
* Is the student totally dysfluent on papern(known as *agraphia*)? (W)
* Does the student lose the gist or thought easily when writing? (W)
* Does the student have difficulty copying notes from the board? (V,M)
* Does the student omit capitalization and/or punctuation consistently? (W)
* Does the student have difficulty with abstract reasoning or with problem solving?

(O)

* Does the student have difficulty with the concepts of time, money, measurement, directionality and/or sequencing in math? (Ma)
* Does the student have difficulty with abstract or symbolic math concepts? (Ma)
* Does the student have difficulty choosing the correct operation in math? (Ma)
* Does the student have difficulty filtering out non-essential information - i.e. can he or she direct his or her attention to the task at hand? (At)
* Does the student have difficulty focusing and maintaining attention? (At)
* Does the student have difficulty with basic calculation? (V,M,Ma)
* Does the student have difficulty with math applications? (V,M,Ma)
* Does the student have difficulty with abstract patterns and relationships between numbers? (VS,Ma)
* Does the student have difficulty understanding numerical order or place value? (Ma)
* Does the student express himself or herself much better orally than in written form? (W)
* Does the student remember information for a day or two, but forget over the long term? (M)
* Does the student consistently forget how to print his or her name, or forget his or her street address, simple number facts, names of letters, etc.? (M)
* Does the student have difficulty with word recall? (M)
* Does the student have difficulty with math facts, formulas or the sequence in a formula? (Ma)

**3.2. Assessment of Students with Learning Disability**

Assessment for intervention must include data based documentation of a student’s performance.

To obtain more efficient and useful information, multiple measures should be used. It is important that assessments are sensitive to the student’s culture and linguistic background. Assessment allows teachers the ability to differentiate instruction so it is more responsive to a student’s needs. Assessment for intervention must include diagnosis, progress monitoring and summative outcome.

**• Diagnostic Assessments** (formative assessment) help identify a student’s specific strengths and weaknesses for the purpose of planning instruction and identifying appropriate interventions (e.g., universal screener).

**• Progress Monitoring Assessment** refers to data gathering during instruction to determine the effectiveness of that instruction as evidenced by student progress and to help the teacher make changes if necessary.

**Summative Assessment** refers to data gathered at the end of the year to determine the appropriateness of instruction and student yearend performance.

**Types of Assessment Instruments**

**Standardized Tests**

Standardized tests are formal measures that compare a student’s performance to that of others or to a specific mastery criterion. Standardized tests require strict procedures in administration, scoring, and interpretation. Information from these tests is useful because it compares the individual student’s skills with peers from the same grade and age and it identifies the student’s strengths and weaknesses. They can be used as summative measures of a student’s performance (Mercer & Pullen, 2009).

There are also disadvantages to formal standardized tests. For example, they lack the specificity needed for planning daily instruction and test results may be influenced by the temperament of the student and the examiner and may not be a true measure of the student achievement. These tests are not useful as pre- and post-tests or for planning instructions and interventions. In most cases, standardized assessments are used in the eligibility process.

The following are examples of standardized assessment tools often used with students with SLD:

**• Woodcock- Johnson-III Tests of Achievement** (WJ-III): These tests assess five areas of the curriculum: oral language, reading, mathematics, written language, and academic knowledge.

**Woodcock-Johnson III Diagnostic Reading Battery:** This is an individual test used to pinpoint strengths and weaknesses in reading skills (for ages 5-0 to 75+).

**Wechsler Intelligence Scale for Children, 4th edition** (WISC-IV): It is the individualtest most used to assess general intellectualperformance of children, ages 6-0 to 16-11.

**• Comprehensive Test of Phonological Processing** (CTOPP): It assesses threetypes of phonological abilities: phonologicalawareness, phonological memory, and rapidnaming. It is designed for students ages 5-0to 24-11.

**• Clinical Evaluation of Language Fundamentals–Revised** (CELF-R): Thistest evaluates oral language skills ofstudents in grades K-12.

**• Test of Written Language–3** (TOWL-3): This test assesses written language skills in ages 7-0 to 18-0.

**• Kaufman Test of Educational Achievement–Normative Upgrade:** It is anindividual achievement test that measuresstudents’ strengths and weaknesses in orallanguage, reading, mathematics, and writtenlanguage.

This list contains some of the commonly used assessment instruments and is not intended to be all inclusive. A variety of other useful assessment instruments are available, and according to the regulations should be selected and administered by trained and knowledgeable personnel in accordance with the instruction provided by the producer of the assessments to ensure validity and reliability.

The role of diagnostic assessment. CBMs and most other progress-monitoring tools are intended to serve as quick indicators of a student’s overall competence in a domain, not as a detailed diagnostic assessment in that domain. If a student’s performance on an appropriate progress-monitoring assessment meets expectations for her or his grade, and if there are no other reasons to be concerned about the student’s performance, then diagnostic assessment is unneces­sary. However, if the student’s performance in progress monitoring raises concerns, or if there are concerns on the part of teachers or families despite the fact that a student meets the benchmark on the progress-monitoring assessment, then further diagnostic assessment may be warranted. Diagnostic assessment, a more time-consuming process than progress-monitoring assessment that is completed when needed as part of general education assessment, involves measures that attempt to pinpoint a student’s specific strengths and weaknesses in a given domain. Signed written permission to conduct a diagnostic placement as an evaluative measure should be obtained from the parent by completing the “Notice and Consent to Con duct an Initial Evaluation” form.

A student’s test scores should be interpreted in relation to information about the norms used as well as the student’s overall patterns of performance on other measures. For example, consider a student with a history of retention, who scores within the average range on a measure of read­ing comprehension when grade norms are used, but who scores below average on the same test when age norms are used, and who also has substantial difficulty with everyday classroom tasks involving reading comprehension. This pattern suggests that the student does have substantial problems in reading comprehension that should not be discounted based on the average grade-normed test score.

PPTs can no longer require a discrepancy between measured intellectual ability and educational performance as one of the criteria for determining whether a student has a specific learning disability. Thus, routine administration of IQ tests to every student being evaluated for a specific learning disability is not required. However, PPTs still may choose to administer IQ tests in situations where information from such tests would be helpful. IDEA 2004 provides for the option to assess the relative contribution of cognitive factors in the determination of eligibility for special education services for students with a disability.

A processing disorder is no longer required to identify a specific learn­ing disability, PPTs may consider a student’s performance on processing measures as needed. For example, if a student appears to have a learning disability in reading, measures of phonological processing may help to provide information about her or his overall strengths and weaknesses in the oral language abilities that are foundational for reading, when given as part of a broader evalu­ation that also includes other measures of language and reading. In addition, measures of working memory may sometimes be useful, because students with a comprehension component to their reading difficulties often have problems with working memory (Nation, 2005). As another exam­ple, measures of executive function or fine motor skill may be helpful as part of a broader evalu­ation of a student who has difficulties with written expression (Hooper, Swartz, Wakely, de Druif and Montgomery, 2002). Teams should take care to use technically adequate processing measures that are relevant to the student’s domain of difficulty (e.g., reading, math or written expression), and to interpret those measures in the context of other information, such as information about ap­propriate instructional strategies and response to intervention. It is important that the information collected be useful in planning appropriate instruction and programming for the student. Culture may be defined in many ways; however, the most simple, yet precise definition might be “a way of life.” Although cultural groups may share many of the same experiences, habits and preferences, multiple ecological factors (e.g., socioeconomic status, family dynamics, and religious values) create individual differences that must be acknowledged to effectively understand and engage students from different cultural, racial and linguistic backgrounds in the learning process. Culture remains a salient factor affecting most every aspect of a student’s life, and its overarching impact on self-image, perception by others, behavior and academic performance should not be discounted or minimized.

Nonbiased assessment is central to the appropriate identification of students with specific learning disabilities, particularly when assessing students whose cultural and linguistic back­grounds differ from those of the dominant culture. Students bring with them their own cogni­tive styles and, although they present with individual differences, research also indicates some similarities within a single cultural group with regard to behavioral patterns, socialization and cognitive styles (Frisby, 2005). Reliance solely on traditional assessment measures and practices may preclude the accurate assessment of students from underrepresented groups. The inclusion of alternate techniques, such as SRBI, prior to or as part of the process for determining eligibil­ity for special education is essential for gathering accurate data for students from culturally and linguistically diverse backgrounds.

The failure of a student from a cultural, racial or linguistic minority group to progress suf­ficiently in interventions that are effective for most other students, including other students from similar backgrounds, could suggest a specific learning disability, assuming the student meets the criteria outlined in this document (pgs. 40-41). PPTs should also consider a student’s develop­mental and family histories. Students with specific learning disabilities sometimes have a history of early language impairment or close family members with similar academic difficulties (Fletcher et al., 2007). The presence of these types of patterns, in conjunction with other evidence, may provide additional support in the appropriate identification of a specific learning disability.

In comprehensive evaluations for a specific learning disability, when a student demonstrates be­havioral or social-emotional difficulties as well as linguistic or academic difficulties, the PPT must decide where the student’s *primary* difficulty lies. If the primary difficulty is determined to be a disability involving language or academic learning,

When a student evaluated for a specific learning disability comes from a background of economic or environmental disadvantage, PPTs must decide if the primary concern is the economic or en­vironmental disadvantage or a learning problem intrinsic to the student. As in the case of English language learners, PPTs should not automatically assume that the student’s difficulties are due to economic or environmental disadvantage. However, PPTs must not identify a student with a specific learning disability if they decide that her or his academic difficulties are due primarily to a factor other than an intrinsic learning difficulty. Examples of ways that economic or envi­ronmental disadvantage may affect students’ academic achievement include limited exposure to literacy at home, limited exposure to academic language and vocabulary, frequent absence from school, fragmented school experiences due to high mobility, or lack of other experiences that influence school learning.

Although a specific learning disability may certainly occur concomitantly with other disabilities, a student should be identified as having a specific learning disability only when the learning disability is the student’s primary problem. A student who exhibits indications of other disabili­ties, such as an intellectual disability, severe emotional disturbance, sensory impairment, motor disability, or autism spectrum disorder, should be evaluated for those disabilities. If the student meets the eligibility criteria for more than one disability, the PPT must decide which disability is primary.

In making this decision, the PPT should consider how a student is functioning with respect to the general education curriculum and determine how the disabilities are influencing the student’s ability to participate and progress in the general curriculum. Whichever disability is affecting the student’s achievement the most would be the primary disability. If medical condi­tions such as attention-deficit hyperactivity disorder (ADHD) or traumatic brain injury (TBI)

**Non-standardized Assessment**

Non-standardized assessments include any informal method of gathering data about a student. Non standardized informal tools measure a student’s achievement on ordinary materials and activities related to the curriculum. These assessment tools better reflect the skills of the student because they provide an accurate and authentic assessment of a student’s ability across various settings. They are related directly to the classroom. Informal measures can be frequently given to monitor student progress and to obtain a summative evaluation of a student’s achievement. These measures can be used to document progress towards mastery of goals and objectives. Examples of informal measures:

• Portfolio assessment

• Curriculum-based assessment (CBA)

• Curriculum-based measurement (CBM)

• Informal arithmetic tests

• Informal Reading Inventory

• Criterion-referenced tests

• Direct observation

• Analysis of mathematical errors

• Dynamic assessment

• Work samples (writing samples, project.

**Unit 4: Early Intervention and educational approaches for Students with LD**

**4.1. Intervention: Helping Students with Learning Disabilities**

Early identification and intervention for students with SLD are needed to influence the course of a student’s development. Several environmental, biological, genetic, and perinatal factors may affect a student’s development and place the student at risk for SLD. If a learning problem or delay is identified, then priority should be given to services that can address the individual needs of the student.

Services and supports must be scientifically-based, developmentally appropriate, family centered, and sensitive to cultural and linguistic differences. Services settings should be inclusive (i.e., full inclusion or reverse inclusion) because typically developing children can model developmental skills.

Early identification and intervention can provide a foundation for later learning and increase the probability of later academic success for children at risk. Early intervention can prevent later reading, writing, and mathematics deficits. Proactive practices can improve the outcomes of children at risk of SLD.

**Assistive Technology (AT)**

Assistive technology device is defined as “any item, piece of equipment, or product system, whether acquired commercially off the shelf, modified, or customized, that is used to increase, maintain, or improve functional capabilities of a child with a disability.”

Effective integration of technology within the academic areas of instruction may enhance the outcomes of students with SLD and maximize their accessibility to the general education curriculum. For example, some students with SLD in written language can benefit from software that emphasizes word processing, especially from those that combine visual and auditory input. When choosing assistive technology for students with SLD, there is a need to identify the technology that addresses the student’s area of identified need, supports the goal of instruction and supports student outcome. They can be compensatory/adaptive, instructional, or a combination of the two (e.g., technology-based graphic organizers and video games) (Allsopp, McHatton, & Farmer, 2010; Englert, Wu, & Zhao, 2005; Marino & Beecher, 2010; Smith & Okolo, 2010).

**Classroom Management**

Classroom management is one of the manychallenges that many teachers face today. Classroommanagement should be designed to attend to theneeds of all students. Students function at differentlevels of social skills just like they function atdifferent levels of academic achievement. Having aconsistent and structured classroom can facilitate the success of classroom management. For example, rules for the use of technology in the classroom must be in place. Technology devices (e.g., cell phone and IPAD) can become disruptions to the classroom. Teachers and students must have a clear understanding of when and how devices are appropriate. Consequences that are enforceable and reasonable for abuse must exist (Charles, 2012). Recognizing that some students with SLD may have working memory deficits is important for classroom management. Establishing routines, procedures and structure can reduce students’ working memory overload. The use of visual clues, modeling and rehearsal of desired behaviors, breaking tasks into subtasks, and giving short, simple and sequential directions can also address working memory capacity problems (Watson & Gable, 2010). Modifying the classroom environment by defining learning areas, having materials organized, accessible and available can avoid distractions and minimize interruptions which can lessen working memory overload.

**Research-Based Behavior Interventions**

To assist local school divisions in addressing behavior issues with students statewide, Virginia has implemented the Positive Behavioral Interventions and Supports (PBIS) initiative. The initiative is designed to help create a climate for successful teaching and learning that emphasizes student compliance with expectations and teacher’s acknowledgment in ways that are meaningful to students. PBIS is a research-based approach that focuses on positive behavior and learning systems for students, teachers, and administrators. Classroom-based positive behavior interventions can facilitate the promotion of educational environments that prevent inappropriate classroom behaviors.

Contingency behavior management is considered to be a positive intervention. Two class wide group contingency behavior management strategies are the Good Behavior Game (see Embry, 2002; Donaldson, Vollmer, Krous, Downs, & Berard, 2011) and the Class wide Function-Based Intervention Team (CW-FIT) (see Kamps et al., 2011; Wills et al., 2010). When implementing the behavior management strategies, teachers must recognize and reward students for appropriate behaviors. Research indicates that group contingency interventions decrease inappropriate classroom behaviors and increase prosocial skills. However, prior to the selection and implementation of classroom management interventions, such as group contingency, school and division policy should be followed.

Psychological and educational supports are vital in helping children with the problem learn to the best of their potential. We can broadly group supports into two as general and specific.

**(a) General Intervention Strategies: -** these refer to set of general psychological and educational considerations, principles, and theories which are important in modifying problems of students with learning disabilities positively. These include:

* Capitalize on enhancing interest and motivation
* Organizing, sequencing, and ordering materials to be learned from simple to complex
* Applying reinforces, and rewards in increasing the likelihood of desirable behaviors
* Rehearsal/practice: conscious and organized repetition of materials enhances acquisition, proficiency, maintenance, generalization and adopt of what is learned
* Providing immediate and task oriented feedback in order to defer inappropriate way of progress on tasks/activities
* Use peers and teachers as models for students as to how they can do solve a certain problem
* Involving many sense organs and multimodalities
* Using self-monitoring skills
* Using study skills like the SQ3R, PQ4R, etc.

**(b) Specific Intervention strategies:** these involve:

**1. Improving Attention and Memory:** the following measures if used appropriately they will help in enhancing memory and attention of students with the problem.

* Reducing verbal destructions
* Using varied instructional materials
* Making tasks interesting
* Decreasing the length of the task
* Maintaining an eye contact with students
* Scheduling difficult tasks when the student is most alert
* Giving short assignments, tests, etc
* Using materials that appeal to sense organs
* Underlining, italicizing, highlighting, capitalizing, etc. important elements of materials to be learned.
* Grouping items into larger and meaningful units

**2. Improving Relationship Problems:** the social relationship problems can be improved by:

* Arranging person – to person communication
* Giving specific instruction in the area of social skills
* Giving group work
* Arranging discussions and presentations.

**3. Improving Academic Problems:** this should involve:

**a. Improving listening problems** by using:

* Repeating words
* Listening words on a tape
* Presenting a pair of words
* Using experiential approach, i.e. using the context which is familiar to the learner

**b. Improving speaking problems** by using:

* Modeling(saying the correct one) and reinforcing the correct attempt of the student
* Giving different contexts so that students with learning disabilities can practice the language
* Allowing students to summarize texts/passages read by the teacher.

**c. Improving problems in reading** by using:

* Teaching sounds by combining consonants and vowels till they become automatic
* Presenting familiar materials/giving daily experience materials
* Making learning disabled students be responsible for their own learning by ordering them to summarize materials and use self – questioning while reading
* Using continuous timed reading practice.

**d. Improving Problems in mathematics** by using:

* Rehearsal, repletion, over learning, etc.
* Games, concrete and abstract materials and multi-sensory materials.
* Using flash cards with symbols (such as +, −, ×, ÷ ) prominently drawn and requiring students to identify.
* Using simple language, vocabulary, sentence, etc.

**e. Improving problems in writing** by using:

* Guided as well as independent practice on narrative and technical aspect of writing will help a lot in alleviation difficulties in writing.
  1. **Conceptual models & Educational Approaches**

Combined approaches includes differentiated instruction, universal design for learning, adaptation, learning strategies, communication technology, direct instruction, formative assessment, and response to intervention

1. **Differentiated Instruction**

Differentiated instruction is a flexible approach to teaching in which a teacher plans and carries out varied approaches to address content, learning processes, learning style, practical procedures, presentation strategies, and assessment tools. It results in a more personal, proactive learning environment, inclusive of a wide variety of learners.

When teachers differentiate instruction, they provide students with the structures to maximize strengths, work around weaknesses, and experience timely remediation. This enables students to take advantage of effective learning strategies as they begin to understand their own personal learning styles, interests, needs, and engage with their learning. As a result, student motivation increases.

The various aspects of differentiated instruction mentioned here should be seen as complementary to one another and not mutually exclusive or competing. The following chart outlines one way that aspects of differentiation can be used together to provide effective, well planned instruction and intervention for all students. Various aspects of differentiation can be used together to plan for diversity and provide robust interventions for students with learning disabilities.

1. **Universal Design for Learning (UDL)**

Universal design for learning (UDL) is a framework of instructional approaches that recognizes and accommodates varied learning styles. It provides learning activities that expand students’ opportunities for acquiring information and demonstrating learning, as well as for enhancing social participation and inclusion.

The driver for universal design is the philosophy of proactively addressing needs. Universal design for learning is integrated into regular instructional planning as a mechanism to make diversity the norm. It provides support for all students and motivates through the element of choice.

**The following assumptions underpin universal design:**

• Teachers make adjustments to personalize learning for all students, not just those with disabilities.

• Flexibility is the key to providing a curriculum that does not stigmatize or penalize students for having learning differences.

• Curriculum materials are as varied and diverse as the learning style and needs of students.

• Groups of student include a continuum of learner differences with evolving strengths and needs.

The principles of universal design are clearly illustrated in the world of architecture and building. The automatic door at the local grocery store provides access for patrons with disabilities. There is a subtle presence of the feature – it is not labelled “for persons with disabilities” – and it provides a benefit to all patrons, those with temporary disabilities such as a sore arm, or those who appreciate making the management of a heavily-laden cart easier. The automatic door is a simple and common-sense solution.

**In an educational context, UDL emphasizes**

• multiple means of presentation, to provide various ways of acquiring information and knowledge (e.g. buddy activities, use of concrete manipulatives, video, computer technology, audio texts)

• multiple means of expression to provide students with alternatives for representing learning beyond written work (e.g. video, teaching a peer, information booth, presentation, drawing, sculpture and drama)

• multiple means of engagement to tap into students’ interests, offer appropriate challenges and/or increase motivation

• respect for students’ learning styles and personal attributes, while still focusing on the required learning outcomes.

UDL is strongly linked to technology because digital formats can be so flexible. Once a text is in digital format, it is transformable – i.e. easily translated from text to speech or expanded with insertions of pictures or video. It is transportable – i.e. easily stored and used again or made available to other students. It is also recordable – i.e. easily stored and played again at will and as necessary for the student. Software applications (advanced organizers and/or graphic organizers for planning, word-prediction software, and spell checkers) provide access to information and the means to respond, so students’ work reflects their learning. When students know how to use these software applications, they can be more self-reliant and independent in completing their work.

UDL is not technology for the sake of technology, an add-on at the end of unit planning, or specific only to students with learning disabilities or other special needs.

1. **Adaptations**

Adaptations are teaching and assessment strategies especially designed to accommodate a student’s needs so he or she can achieve the learning outcomes of the curriculum and demonstrate mastery of concepts. Accommodations in the form of adaptations occur when teachers differentiate instruction, assessment and materials in order to create a flexible, personalized learning experience for a student or group of students. Adaptations can be made available to all students, both with and without a learning disability.

**Adaptations might be thought of as adjustments to how students:**

• take in information (input)

• participate in learning activities (engagement/process)

• demonstrate their learning (output)

**Adaptations might include alternate formats, strategies or settings, and may involve changes to:**

• the social and/or physical learning environment

• instruction methods

• learning materials, resources and topics

• response formats and assessment procedures

• time frames for learning

**Creating and Implementing Adaptations**

In a learning environment where differentiated instruction and assessment has already been implemented, the diverse needs of learners are often already met. In non-differentiated learning environments, adaptations should be provided on an individual basis. In both kinds of settings, the accommodations, whether universal or individual, should endeavour to meet students’ needs while focusing on personal learning and active engagement.

The process of creating and implementing adaptations includes finding an appropriate, personalized student-strategy fit. The teacher should consider the individual student’s strengths and needs, as well as the learning environment, and look for ways to improve performance in areas of weakness and bypass student challenges, to minimize their impact on overall progress.

To decide the types of adaptations that might help students succeed, the following questions might be posed:

**What do students say about**

• their interests

• their learning

• what they need/want to learn

• what they feel good about

• what frustrates them

• their preferred learning strategies?

Based on assessment results and student records, as well as parent and teacher knowledge of a student, **what are a student’s**

• learning needs

• processing weaknesses

• skill deficits

• social or emotional issues

• environmental needs?

**What are a student’s strengths in various areas such as**

• processing

• skills

• strategies

• learning style and preference

• areas of interest

• attitude and dispositions?

To what degree does the learning environment accommodate the student’s needs without requiring individualized adaptations?

What adaptations have the potential to address the needs of this student’s learning disabilities?

Of the adaptations that would meet the student’s needs, which would best suit the learning environment?

**Potential Adaptations**

**Some typical types of adaptations might be**

• audio tapes, electronic texts, or a peer helper to assist with assigned readings

• access to a computer for written assignments (e.g. use of word-prediction software, spell checker, idea generator)

• alternatives to written assignments for demonstrating knowledge and understanding

• advance organizers/graphic organizers to assist with following directions

• extended time to complete assignments or tests

• direct instruction and practice of study skills

• use of computer software which provides text-to-speech/speech-to-text capabilities

• pre-teaching key vocabulary or concepts; multiple exposure to materials

• working on the learning outcomes for a lower grade level.

1. **Direct Instruction**

Direct instruction is an approach to teaching where the particular skill or content to be learned is presented explicitly.

For some students with a learning disability, exploration or discovery methods of teaching might be ineffective for acquiring core content and developing foundational academic skills. This could be due to a students’ inability to make connections from existing knowledge to new learning, learn new vocabulary, develop fluency with a particular skill, create mental frameworks for organizing and remembering content, and/or develop strategies for learning. Direct instruction does not assume students will implicitly, intuitively or indirectly acquire a particular skill or set of facts.

Research has shown that direct instruction can be an effective strategy for teaching mathematical procedures and computations, reading (decoding), explicit reading comprehension strategies, science facts, concepts and rules, foreign language vocabulary and grammar.

Direct instruction involves explaining a concept, skill or strategy, modeling how to perform a task or approach a problem, providing feedback, guiding practice, reinforcing success, shaping understanding, providing a scaffold to the next steps, fostering mastery through practice and positive reinforcement and promoting generalization of skills.

Direct instruction can be employed as seven steps in a teaching and learning sequence. Together, the steps make the skills to be learned explicit and provide feedback during the acquisition phase. It is an effective approach in promoting student success and confidence.

**Steps of Direct Instruction**

**1. Anticipatory set**

The teacher ensures students are aware of the learning goal and explains the work to be done; e.g. “Let’s remember some of the strategies we are using to read new words. Today we are reading a new book.”

**2. Statement of the objective**

The teacher clearly explains the objective for the work for today; e.g. “Today we are reading the first 10 pages of our new book and we will chart how many words have suffixes.”

**3. Input**

The teacher explains the skill.

**4. Modeling**

The teacher models the skill and guides practice in development of the skill; e.g. “Remember the strategies we’ve practiced for creating a question based on what we have read. Today everyone will ask a question for the group to answer.”

**5. Checking for understanding**

The teacher provides students with criteria for self-evaluation; e.g. “Look at your writing and be prepared to tell me why it is or isn’t a paragraph. Use your paragraph checklist to make your decisions.”

**6. Guided/monitored practice and feedback**

The teacher is available to students as they practice and provides on-the-spot feedback; e.g. “I will listen as you read aloud. Tell me when you need to stop and use a word-solving strategy. I will tell you when I hear that you need a strategy.” (It is essential that students do not practice errors).

**7. Independent practice**

Teachers provide activities for students to consolidate skills and develop confidence and independence; e.g. “Invent a math problem for me to solve and be prepared to tell me if I use correct logic and counting skills.” The teacher gives examples and non-examples of the skill.

1. **Learning Strategies**

Learning strategies are techniques that maximize student strengths and provide structures that enable students to learn more effectively. Some examples of learning strategies include use of graphic or advance organizers, assistive software, mental rehearsal and visualization techniques.

Many students with learning disabilities demonstrate a tendency to compartmentalize their learning; therefore, they often require guidance in integrating strategies broadly across a variety of situations.

This graphic suggests some key facets of learning that can improve by applying effective learning strategies.

**Planning**

problem solving

goal setting

prioritizing

monitoring

**Thinking**

concentrating

analyzing

comparing and contrasting

evaluating

**Studying**

memorizing

test-taking

note-taking

**Organizing**

Scheduling time management of learning materials

1. **Information and Communications Technologies**

Information and Communications Technologies can enable teachers to personalize the learning experience by delivering instruction in a variety of modes. A wide array of technology has been specifically designed to support students’ active engagement in learning tasks, skill development and ability to demonstrate learning.

Technology is not a strategy in and of itself; rather, it is an adaptable and powerful tool for providing appropriate personalized learning activities and adaptations. Technology can enhance student independence and self-reliance with reading and writing tasks and provide valuable opportunities to practice skills specifically tailored to a student’s instructional level. Technology can provide the opportunity for students to explore reading materials that match their individual interest rather than limit them to their ability – thus helping them learn new vocabulary, make connections with new knowledge and maintain enjoyment, curiosity and motivation.

1. **Formative Assessment**

Formative assessment is a model that uses feedback from the continuous monitoring of student progress to identify learning strengths and weaknesses and to guide instruction, enabling teachers to recognize the needs of their students and plan accordingly. The assessment/teaching cycle is continuous and involves

• assessing what a student can do and needs to learn

• considering student needs, learning styles and interests when planning appropriate instructional techniques and resources

• providing instructional support

• monitoring progress and using small group or personalized instruction as required

• reflecting and identifying areas where adjustment in strategy is necessary

• continuously monitoring one’s instructional techniques and student response.

An application of this process used in a reading program is a continuous cycle of running records (assessing and monitoring progress) paired with guided-reading lessons (direct teaching of academic skills, task-approach strategies, modeling and constructive feedback).

1. **Response to Intervention (RTI)**

Response to Intervention (RTI) is a framework for formative assessment that involves collecting data on a regular basis to make instructional decisions in a multi-tier model. RTI is based on the principle of prevention and early intervention. By using ongoing assessment to inform teaching practice and allocate instructional resources, teachers are able to provide appropriate, evidence-based interventions.

RTI research and practice set a high standard for documenting the extent of students’ learning difficulties, and focuses attention on data about each student’s progress and use of research and evidence-based practices.

Central elements of all RTI models include early screening of all students to identify those at risk for academic difficulties, implementing research-based interventions matched to student need and increasing intensity of intervention when needed. RTI also involves continuous monitoring and recording of student progress during interventions to guide decisions for both the student (e.g. further assessment, individualized planning) and the teacher (e.g. using small group or one-to-one learning contexts, topics for professional development).

Although RTI originates from special education, it is intended for use with all students in general education. The three tiers of RTI could be described as a triangle divided horizontally into three unequal sections.

**Tier 3:** Intensive: (1-5% of students) Intensive, individualized interventions for students who have insufficient response to evidence-based interventions in the first two tiers

**Tier 1:** Universal: (80-90% of students) High quality instructional and behavioural supports for all students to reach

**Tier 2:** Targeted: (10-15%of students) Targeted specific prevention or remediation interventions for students whose academic performance or behaviour lag behind the norm for proficiency and in their grade