CHAPTER II

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In this chapter the researcher has made an effort to provide a glimpse into the meaning of learning disabilities; definitions; identifying signs; causes and types of learning disabilities. Also, an effort has been made to briefly explain the meaning and concept of behavioural characteristics studied which includes: achievement motivation; styles of learning; styles of thinking; self – esteem and study habits. Meaning and importance of academic achievement has also been discussed.

LEARNING DISABILITIES

“Learning disability” is a complex phenomenon to understand. There are many connotations of learning disabilities, thus, even today it creates confusion in the mind of the general public and the professionals. Learning disability is a disorder in one or more of the basic psychological processes involved in understanding or using spoken or written language. These may be manifested in disorders of listening, thinking, talking, reading, writing, spelling or arithmetic. They include conditions which have been referred to as perceptual handicap, brain injury, minimal brain dysfunction, dyslexia, developmental aphasia, etc. These do not include learning problems which are primarily due to visual, hearing, motor handicaps or mental retardation, emotional disturbances or due to environmental disadvantage.

The way our brains process information is extremely complex - it's no wonder that things can get messed up sometimes. Take the simple act of looking at a picture, for example: Our brains not only have to form the lines into an image, they also have to recognize what the image stands for, relate that image to other facts stored in our memories, and then store this new information. It's the same thing with speech - we have to recognize the words, interpret the meaning, and figure out the significance of the statement to us. Many of these activities take place in separate parts of the brain, and it's up to our minds to link them all together.

Learning disabilities may also be due to genetic, other congenital and / or acquired neuro-biological factors. They are not caused by factors such as cultural or language differences, inadequate or inappropriate instruction, socio-economic status.
or lack of motivation, although any one of these and other factors may compound the impact of learning disabilities. Frequently learning disabilities co-exist with other conditions, including attentional, behavioural and emotional disorders, sensory impairments or other medical conditions.

Learning Disabilities refers to a variety of disorders that affect the acquisition, retention, understanding, organization or use of verbal and/or non-verbal information. These disorders result from impairments in one or more psychological processes related to learning, in combination with otherwise average abilities essential for thinking and reasoning. Learning disabilities are specific not global impairments and as such are distinct from intellectual disabilities.

Learning disabilities range in severity and invariably interfere with the acquisition and use of one or more of the following important skills:

- **Oral language** (e.g., listening, speaking, understanding)
  (a) Aphasia: loss of ability to comprehend, manipulate or express orally.
  (b) Dysphasia: difficulty in the process of interpreting and expressing language.

- **Reading** (e.g., decoding, comprehension)
  (a) Alexia: loss of ability to read language.
  (b) Dyslexia: difficulty in the process of reading or interpreting letters and words.

- **Written language** (e.g., spelling, written expression)
  (a) Agraphia: total inability to write.
  (b) Apraxia: inability to make movements as in writing or drawing.
  (c) Dysgraphia: partial inability to write.
  (d) Dyspraxia: difficulty in the process of making fine motor movements.

- **Mathematics** (e.g., computation, problem solving)
  (a) Acalculia: inability to perform calculations.
  (b) Dyscalculia: difficulty in the process of understanding and interpreting numbers.
Learning disabilities may also cause difficulties with organizational skills, social perception and social interaction. The impairments are generally life-long. However, their effects may be expressed differently over time, depending on the match between the demands of the environment and the individual's characteristics. Some impairment(s) may be noted during the pre-school years, while others may not become evident until much later. During the school years, learning disabilities are suggested by unexpectedly low academic achievement or achievement that is sustainable only by extremely high levels of effort and support.

DEFINITIONS OF LEARNING DISABILITIES

Since the inception of the area of learning disabilities, controversy has raged over how learning disabilities should be defined. In understanding the learning disabilities, a most common error made is the assumption that learning disabilities and learning problems encountered in everyday school experiences are identical. The two are not synonymous.

“Learning disability is used to describe a specific type of exceptional child; it is not a generic term for all children who have learning problems in school.” – Myers & Hammill, (1969)

“Learning disability is the deviant behavior which arises from dysfunction of the central processing mechanism, i.e., psychological process.” – Chalfant & Scheffelin (1969)

“Learning disability is a behavioral deficit almost always associated with academic performance and that can be remediated by precise, individualised instructional programming.” – Haring (1974)

The child with learning disabilities experiences particular type of learning problems with some discriminating characteristics that are sufficiently identifiable to lead to the deliberate use of the modifier ‘specific’ in referring to problems of this type; hence the commonly applied phrase ‘specific learning disabilities’.
Public Law 94-142 (U.S. Deptt. Of Education, 1975) defines specific learning disabilities as:

“Specific learning disability means a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken, or written, which may manifest itself in an imperfect ability to listen, think, speak, read, write, spell or do mathematical calculations. The term includes such conditions as perceptual handicaps, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia. The term does not include children who have learning problems which are primarily the result of visual, hearing, or motor handicaps, of mental retardation, of emotional disturbance, or of environmental, cultural, or economic disadvantage.”

National Joint Committee on Learning Disabilities (1983) defines learning disabilities as:

“...a generic term that refers to a heterogeneous group of disorders manifested by significant difficulties in the acquisition and use of listening, speaking, reading, writing, reasoning, or mathematical abilities. These disorders are intrinsic to the individual and presumed to be due to central nervous system dysfunction. Even though a learning disability may occur concomitantly with other handicapping conditions (e.g., sensory impairment, mental retardation, social and emotional disturbance) or environmental influences (e.g., cultural differences, insufficient / inappropriate instruction, psychological factors), it is not the direct result of those conditions or influences.”

In the Dictionary of Psychology (Andrew M. Colman, 2001), learning disability has been defined as:

“...a generic name for disorders characterised by substantial deficits in scholastic or academic skills, including reading disorder, mathematical disorder, and disorder of written expression.”
It is evident from the definitions that learning disabilities is not a single syndrome; in fact, it is an umbrella term which exhaustively covers all the possible causing factors and the characteristics of learning disabilities.

**IDENTIFYING SIGNS OF LEARNING DISABILITIES**

For someone diagnosed with a learning disability, it can seem scary at first. But a learning disability doesn’t have anything to do with a person's intelligence – after all, many successful people as Walt Disney, Alexander Graham Bell, and Winston Churchill all had learning disabilities.

One can’t tell by looking that a person has a learning disability, which can make learning disabilities hard to diagnose. Identifying a child with learning disabilities (LD) is difficult since each has a unique cluster of learning problems. Learning disabilities typically first show up when a person has difficulty speaking, reading, writing, figuring out a math problem, communicating with a parent, or paying attention in class. It can be confusing, though. What qualifies as “trouble” enough to be diagnosed with a learning disability? Reading, doing math, and writing letters may be tough for lots of kids at first. But when those early troubles don't fade away, and it's really difficult to make any progress, it's possible the kid has a learning disability. Some kids' learning disabilities are diagnosed in grade school when a parent or a teacher notices a kid can't follow directions for a game or is struggling to do work which he or she should be able to do easily. But other kids develop sophisticated ways of covering up their learning issues, so learning disabilities don't show up until the teen years when schoolwork – and life – gets more complicated.

Although this complex issue has been studied by professionals in medicine, psychology and education, there is no agreed upon cause or explanation. Professionals do agree, however, that although the LD child has the ability to learn, some type of neurological dysfunction inhibits this ability and produces an uneven pattern of intellectual growth. This uneven pattern of brain growth interferes with receiving, processing and responding to information.

There are many characteristics common to learning disabled children. It is important to understand that all children exhibit some of these characteristics at some
time during their normal development. The difference, though, is that LD children usually have several of these characteristics that don't disappear with advancing age. In addition, they often perform erratically and inconsistently in school.

Learning disabled children seem to have problems with the learning process. An LD child may be able to memorize facts when hearing them through the spoken word, but unable to memorize them when reading. Another child may memorize facts but be unable to translate that knowledge onto paper due to writing, spelling or concentration difficulties.

By the time children are teenagers; their frustration often leads to low levels of self esteem. Low self esteem, combined with continual failure, creates a negative attitude about school and authority figures. Therefore, each LD child requires highly specialized teaching methods and can learn at an acceptable rate only when an educational program is designed to meet his or her specific needs.

Learning disabilities typically result in underachievement in academic work (Winzer, 1990) with secondary problems in social and emotional development (Mercer, 1986). Academic underachievement is often compounded by excessive motor activity or attention deficits (Mercer, 1986; Santrock & Yussen, 1990). Perhaps what most distinguishes learning disabilities from other disabilities is their invisible and seemingly benign character. A learning disability is present in a normally developing child with a normal intelligence (Reid, 1988). The disability is not readily discernible and has come to be viewed as a “hidden handicap” (Faerstein, 1981; O’Hara & Levy, 1984; Pfeiffer, Gerber & Reiff, 1985). Moreover, as a primarily academic problem, learning disabilities are often not manifested until the school years.

Variously stated, following characteristics serve as benchmarks for identifying children with learning disabilities (LD):-

- The child with LD has average or above average intelligence, adequate sensory acuity, but is achieving considerably less than a composite of his intelligence, age, and educational ability would predict.
- The child with LD has specific difficulty in acquiring and using information or skills essential to problem solving (Valett, 1969).
• The child with LD has integrity emotional, motorically, sensorially, and intellectually, but despite these integrities, cannot learn in the usual manner (Johnson & Myklebust, 1967).

• The child with LD displays developmental discrepancies in ability, has a specific problem that is not a correlate of other primary handicapping conditions, and displays behavioral deficits (Kirk, 1972).

• The child with LD exhibits an educationally significant discrepancy between apparent capacity and functioning (Bateman, 1964).

WHAT CAUSES LEARNING DISABILITIES?

Understandably, one of the first questions parents ask when they learn their child has a learning disorder is "Why? What went wrong?"

Mental health professionals stress that since no one exactly knows what causes learning disabilities, it doesn't help parents to look backward to search for possible reasons. There are too many possibilities to pin down the cause of the disability with certainty. It is far more important for the family to move forward in finding ways to get the right help. Scientists/researchers, however, do need to study causes in an effort to identify ways to prevent learning disabilities.

Once, scientists thought that all learning disabilities were caused by a single neurological problem. But recent research findings have helped us see that the causes are more diverse and complex. New evidence seems to show that most learning disabilities do not stem from a single, specific area of the brain, but from difficulties in bringing together information from various brain regions. Today, a leading theory is that learning disabilities stem from subtle disturbances in brain structures and functions. Some scientists believe that, in many cases, the disturbance begins before birth. Some of the probable causes of learning disabilities are:

(A) Errors in fetal brain development;

(B) Genetic Factors;

(C) Tobacco, Alcohol, and Other Drug Use;

(D) Problems during Pregnancy or Delivery;
Errors in Fetal Brain Development

Throughout pregnancy, the fetal brain develops from a few all-purpose cells into a complex organ made of billions of specialized, interconnected nerve cells called neurons. During this amazing evolution, things can go wrong that may alter how the neurons form or interconnect.

In the early stages of pregnancy, the brain stem forms. It controls basic life functions such as breathing and digestion. Later, a deep ridge divides the cerebrum — the thinking part of the brain — into two halves, a right and left hemisphere. Finally, the areas involved with processing sight, sound, and other senses develop, as well as the areas associated with attention, thinking, and emotion.

As new cells form, they move into place to create various brain structures. Nerve cells rapidly grow to form networks with other parts of the brain. These networks are what allow information to be shared among various regions of the brain. Throughout pregnancy, this brain development is vulnerable to disruptions. If the disruption occurs early, the fetus may die, or the infant may be born with widespread disabilities and possibly mental retardation. If the disruption occurs later, when the cells are becoming specialized and moving into place, it may leave errors in the cell makeup, location, or connections. Some scientists believe that these errors may later show up as learning disorders.

Genetic Factors

The fact that learning disabilities tend to run in families indicates that there may be a genetic link. For example, children who lack some of the skills needed for reading, such as hearing the separate sounds of words, are likely to have a parent with a related problem. However, a parent's learning disability may take a slightly different form in the child. A parent who has a writing disorder may have a child with an expressive language disorder. For this reason, it seems unlikely that specific learning disorders are inherited directly. Possibly, what is inherited is a subtle brain dysfunction that can in turn lead to a learning disability.

There may be an alternative explanation for why LD might seem to run in families. Some learning difficulties may actually stem from the family environment.
For example, parents who have expressive language disorders might talk less to their children or the language they use may be distorted. In such cases, the child lacks a good model for acquiring language and therefore, may seem to be learning disabled.

• **Tobacco, Alcohol, and Other Drug Use**

Many drugs taken by the mother pass directly to the fetus. Research shows that a mother’s use of cigarettes, alcohol, or other drugs during pregnancy may have damaging effects on the unborn child. Scientists have found that mothers who smoke during pregnancy may be more likely to bear smaller babies. This is a concern because small newborns, usually those weighing less than 5 pounds, tend to be at risk for a variety of problems, including learning disorders.

Alcohol also may be dangerous to the fetus’ developing brain. It appears that alcohol may distort the developing neurons. Heavy alcohol use during pregnancy has been linked to fetal alcohol syndrome, a condition that can lead to low birth weigh, intellectual impairment, hyperactivity, and certain physical defects. Any alcohol use during pregnancy, however, may influence the child’s development and lead to problems with learning, attention, memory, or problem solving. Because scientists have not yet identified "safe" levels, alcohol should be used cautiously by women who are pregnant or who may soon become pregnant.

Drugs such as cocaine – especially in its smokable form known as crack – seem to affect the normal development of brain receptors. These brain cell parts help to transmit incoming signals from our skin, eyes, and ears, and help regulate our physical response to the environment. Because children with certain learning disabilities have difficulty understanding speech sounds or letters, some researchers believe that learning disabilities, as well as ADHD, may be related to faulty receptors. Current research points to drug abuse as a possible cause of receptor damage.

• **Problems during Pregnancy or Delivery**

Other possible causes of learning disabilities involve complications during pregnancy. In some cases, the mother’s immune system reacts to the ferns and attacks it as if it were an infection. This type of disruption seems to cause newly formed brain cells to settle in the wrong part of the brain. Or during delivery, the umbilical cord
may become twisted and temporarily cut off oxygen to the fetus. This, too, can impair brain functions and lead to LD.

- **Toxins in the Child's Environment**

  New brain cells and neural networks continue to be produced for a year or so after the child is born. These cells are vulnerable to certain disruptions, also. Researchers are looking into environmental toxins that may lead to learning disabilities, possibly by disrupting childhood brain development or brain processes. Cadmium and lead, both prevalent in the environment, are becoming a leading focus of neurological research. Cadmium, used in making some steel products, can get into the soil, then into the foods that we eat. Lead was once common in paint and gasoline, and is still present in some water pipes. A study of animals showed a connection between exposure to lead and learning difficulties. In the study, rats exposed to lead experienced changes in their brainwaves, slowing their ability to learn. The learning problems lasted for weeks, long after the rats were no longer exposed to lead. In addition, there is growing evidence that learning problems may develop in children with cancer who had been treated with chemotherapy or radiation at an early age. This seems particularly true of children with brain tumors who received radiation to the skull.

  Unlike other disabilities, such as paralysis or blindness, a learning disability (LD) is a hidden handicap. A learning disability doesn't disfigure or leave visible signs that would invite others to be understanding or offer support. LD is a disorder that affects people's ability to either interpret what they see and hear or to link information from different parts of the brain. These limitations can show up in many ways – as specific difficulties with spoken and written language, coordination, self-control, or attention. Such difficulties extend to schoolwork and can impede learning to read or write, or to do math.

  Learning disabilities can be lifelong conditions that, in some cases, affect many parts of a person's life: school or work, daily routines, family life, and sometimes even friendships and lay. In some people, many overlapping learning disabilities may be apparent. Other people may have a single, isolated learning problem that has little impact on other areas of their lives.
TYPES OF LEARNING DISABILITIES

"Learning disability" is not a diagnosis in the same sense as "chickenpox" or "mumps." Chickenpox and mumps imply a single, known cause with a predictable set of symptoms. Rather, LD is a broad term that covers a pool of possible causes, symptoms, treatments, and outcomes. Partly because learning disabilities can show up in so many forms, it is difficult to diagnose or to pinpoint the causes. And no one knows of a pill or remedy that will cure them. Not all learning problems are necessarily learning disabilities. Many children are simply slower in developing certain skills. Because children show natural differences in their rate of development, sometimes what seems to be a learning disability may simply be a delay in maturation.

Learning disabilities can be divided into three broad categories and each of these categories includes a number of more specific disorders:

(A) Developmental speech and language disorders;
(B) Academic skills disorders;
(C) "Other," a catch-all that includes certain coordination disorders and learning handicaps not covered by the other terms.

(A) Developmental Speech and Language Disorders

Speech and language problems are often the earliest indicators of a learning disability. People with developmental speech and language disorders have difficulty producing speech sounds, using spoken language to communicate, or understanding what other people say. Depending on the problem, the specific diagnosis may be:

(i) Developmental articulation disorder;
(ii) Developmental expressive language disorder;
(iii) Developmental receptive language disorder.

(i) Developmental Articulation Disorder – Children with this disorder may have trouble controlling their rate of speech. Or they may lag behind playmates in learning to make speech sounds. For example, Wallace at age 6 still said "wabbit" instead of "rabbit" and "thwim" for "swim." Developmental articulation disorders are
common. They appear in at least 10 percent of children younger than age 8. Fortunately, articulation disorders can often be outgrown or successfully treated with speech therapy.

(ii) **Developmental Expressive Language Disorder** – Some children with language impairments have problems expressing themselves in speech. Their disorder is called, therefore, a developmental expressive language disorder. Susan, who often calls objects by the wrong names, has an expressive language disorder. Of course, an expressive language disorder can take other forms. A 4-year-old who speaks only in two-word phrases and a 6-year-old who can't answer simple questions also have an expressive language disability.

(iii) **Developmental Receptive Language Disorder** – Some people have trouble understanding certain aspects of speech. It's as if their brains are set to a different frequency and the reception is poor. There's the toddler who doesn't respond to his name, a preschooler who hands you a bell when you asked for a ball, or the worker who consistently can't follow simple directions. Their hearing is fine, but they can't make sense of certain sounds, words, or sentences they hear. They may even seem inattentive. These people have a receptive language disorder. Because using and understanding speech are strongly related, many people with receptive language disorders also have an expressive language disability.

Of course, in preschoolers, some misuse of sounds, words, or grammar is a normal part of learning to speak. It's only when these problems persist that there is any cause for concern.

(B) **Academic Skills Disorders**

Students with academic skills disorders are often years behind their classmates in developing reading, writing, or arithmetic skills. The diagnoses in this category include: (i) Developmental reading disorder; (ii) Developmental writing disorder; (iii) Developmental arithmetic disorder.

(i) **Developmental Reading Disorder** – This type of disorder, also known as dyslexia, is quite widespread. In fact, reading disabilities affect 2 to 8 percent of elementary school children.
When one thinks of what is involved in the “three R's—reading, 'riting, and 'rithmetic—it's astounding that most of us do learn them. Consider that to read, one must simultaneously:

- Focus attention on the printed marks and control eye movements across the page
- Recognize the sounds associated with letters
- Understand words and grammar
- Build ideas and images
- Compare new ideas to what you already know
- Store ideas in memory

Such mental juggling requires a rich, intact network of nerve cells that connect the brain's centers of vision, language, and memory.

A person can have problems in any of the tasks involved in reading. However, scientists found that a significant number of people with dyslexia share an inability to distinguish or separate the sounds in spoken words. Dennis, for example, can't identify the word “bat” by sounding out the individual letters, b-a-t. Other children with dyslexia may have trouble with rhyming games, such as rhyming “cat” with “bat.” Yet scientists have found these skills fundamental to learning to read. Fortunately, remedial reading specialists have developed techniques that can help many children with dyslexia acquire these skills.

However, there is more to reading than recognizing words. If the brain is unable to form images or relate new ideas to those stored in memory, the reader can't understand or remember the new concepts. So other types of reading disabilities can appear in the upper grades when the focus of reading shifts from word identification to comprehension.

(ii) Developmental Writing Disorder – Writing, too, involves several brain areas and functions. The brain networks for vocabulary, grammar, hand movement, and memory must all be in good working order. So a developmental writing disorder may result from problems in any of these areas. For example, Dennis, who was unable to distinguish the sequence of sounds in a word, had problems with spelling. A child
with a writing disability, particularly an expressive language disorder, might be unable to compose complete, grammatical sentences.

(iii) Developmental Arithmetic Disorder – Arithmetic involves recognizing numbers and symbols, memorizing facts such as the multiplication table, aligning numbers, and understanding abstract concepts like place value and fractions. Any of these may be difficult for children with developmental arithmetic disorders. Problems with numbers or basic concepts are likely to show up early. Disabilities that appear in the later grades are more often tied to problems in reasoning.

Many aspects of speaking, listening, reading, writing, and arithmetic overlap and build on the same brain capabilities. So it's not surprising that people can be diagnosed as having more than one area of learning disability. For example, the ability to understand language underlies learning to speak. Therefore, any disorder that hinders the ability to understand language will also interfere with the development of speech, which in turn hinders learning to read and write. A single gap in the brain's operation can disrupt many types of activity.

(C) "Other" Learning Disabilities

The “other” lists additional categories, such as "motor skills disorders" and "specific developmental disorders not otherwise specified." These include delays in acquiring language, academic, and motor skills that can affect the ability to learn, but do not meet the criteria for a specific learning disability. Also included are coordination disorders that can lead to poor penmanship, as well as certain spelling and memory disorders. The category “Other” mainly includes Attention Disorders. Nearly 4 million school-age children have learning disabilities. Of these, at least 20 percent have a type of disorder that leaves them unable to focus their attention.

Some children and adults who have attention disorders appear to daydream excessively. And once you get their attention, they're often easily distracted. If they are quiet and don't cause problems, their problems may go unnoticed. They may be passed along from grade to grade, without getting the special assistance they need. In a large proportion of affected children – mostly boys – the attention deficit is accompanied by hyperactivity. They act impulsively, running into traffic or toppling desks. They blurt out answers and interrupt. In games, they can't wait their turn. These
children's problems are usually hard to miss. Because of their constant motion and explosive energy, hyperactive children often get into trouble with parents, teachers, and peers.

By adolescence, physical hyperactivity usually subsides into fidgeting and restlessness. But the problems with attention and concentration often continue into adulthood. At work, adults with ADHD often have trouble organizing tasks or completing their work. They don't seem to listen to or follow directions. Their work may be messy and appear careless.

Attention disorders, with or without hyperactivity, are not considered learning disabilities in themselves. However, because attention problems can seriously interfere with school performance, they often accompany academic skills disorders.

ACHIEVEMENT MOTIVATION

According to Garrison & Gray (1955) school learning is limited by three major factors – the ability to learn, the will to learn, and the methods of learning. School retardation may be due to low mental ability, lack of motivation and poor study methods.

One objective of education is to assist students to achieve knowledge and skills. A related objective is to encourage students to want to achieve. Atkinson (1965) outlined a theory of motivation that is relevant to both these objectives. He indicated that the tendency to achieve is a learned motivational disposition. The tendency to achieve success in connection with any task or activity is a function of three variables: the motive to achieve success, the probability that performance of the task will be followed by success, and the relative attractiveness of achieving success, referred to as the incentive value of success.

Although many personality tests contain a scale designed to measure achievement motivation, the term was popularized in personality psychology by the Thematic Apperception Test (TAT) content analysis scoring system developed by McClelland, Atkinson, Clark and Lowell (1953). Based on the effects on TAT stories of several different kinds of experimental arousal of achievement motivation, McClelland and colleagues defined the achievement motive as involving a concern
for excellence – specifically, images of positive and negative anticipation, instrumental activity, explicitly stated desire or need, and goal satisfaction.

According to Gates et al (1963) motivation has a trio-functioning of energizing the behavior, selecting or determining the behavior and tendency to react to different situations as well as direct behavior.

‘Motivation’ is the backbone of every success story. The excellence of success in life depends on the inner urge to excel – that is – motivation which acts as a stimulant. ‘Motivation’ may simply be stated as a stimulant arousing interest of the person in the activity.

The achievement motivation, a desire to perform well and attain success, clearly plays an important role in individual and societal accomplishments. Henry Alexander Murray, Jr. introduced the term into personality psychology, as one of 20 fundamental human “needs” or motives. A desire to excel or do things well is a personal characteristic of persons with high achievement motivation. Individual differences in this characteristic exist at every age and grade and may be relatively stable from childhood to young adulthood.

Over the past 25 years, the achievement goals have become an important concept to address achievement motivation in school settings (De Fonseca et al, 2004). Achievement goals are defined as the purpose or cognitive-dynamic focus of competence-relevant activity and the goal adopted is posited to influence how individuals interpret and experience achievement settings. According to the trichotomous model, three independent achievement goals are supposed to account for competence-based strivings (a) Mastery goals that focus on the development of competence and task mastery, (b) Performance-approach goals that focus on the attainment of favourable judgements of normative competence, and (c) Performance-avoidance goals that focus on avoiding unfavourable judgements of normative competence.

Researchers of achievement motivation and future time perspective have traditionally believed that humans are primarily motivated by their perception that the actions they are currently taking are important for the achievement of a valued future goal (Husman, 1998). Researchers in the area of intrinsic motivation theory have
made a case for a different view of motivation. These researchers believe that the strongest, most easily sustained type of motivation comes from intrinsic interest in the task at hand. These researchers also believe that external pressures to engage in the task may actually decrease intrinsic interest in the task.

Available evidence suggests that achievement motivation develops in children out of high parental expectations, warmth and encouragement, and low control – in short, training for independence (McClelland, 1985). A longitudinal study of children whose mothers had been intensively interviewed further pinpoints the role of scheduled feedings, severity of toilet training (though not overall strictness), and (especially in boys) standards of neatness as correlates of later achievement motivation. These results suggest that establishing voluntary control of one’s own autonomic nervous system processes may be an important early precursor of achievement motivation. McClelland further linked arousal of achievement motivation to possible higher levels of the hormone arginine vasopressin, which further supports such a link at the physiological level.

Yet, even if achievement motivation has roots in early childhood, it is also affected by later experience. Thus McClelland and Winter (1969) showed that training courses designed to increase achievement motivation through cognitive training, self-study, and other principles of applied behavior change led to improved performance.

STYLES OF LEARNING AND THINKING

For more than half a century, scholars have been investigating the role of styles in human performance. The construct style was initially coined by Allport (1937) to refer to particularized modes of information processing employed by individuals as influenced by distinctive personality traits or types. In the study of styles, many different labels with the root word style have been created. The three most frequently used terms are cognitive styles, learning styles, and thinking styles. Although these three types of styles are conceptually different, they are similar in a fundamental way: all of them are different from abilities. Ability refers to what one can do, whereas a style refers to how one prefers to use the abilities one has.
According to Venkataraman (1994), “Styles depend upon cerebral dominance of an individual in retaining and processing different modes of information in his own style of learning and thinking”.

Cognitive / thinking style is broad dimension of individual differences that extends across both perceptual and intellectual activities. It covers various modes of knowing, perceiving, imagining, remembering, conceiving, judging and reasoning. Kagan (1964) conceived cognitive style as the preferred use of a specific class of conceptual responses. Shuell (1981) defined cognitive styles as the “preferred ways that different individuals have for processing and organizing information and for responding to environmental stimuli”.

Styles – whether learning styles; cognitive styles; or thinking styles – are propensities rather than abilities and are not fixed, but changeable. Some individuals may have one preferred style at one stage and another preferred style at some other stage.

Researches in the recent past have led to the description of qualitative differences in the outcomes of learning which are related to different thinking and learning approaches employed by students who either seek out meaning or intend to conform to assessment requirement mainly by memorizing. It has bee established now that contrasting styles of learning and that of thinking can be identified.

It may be said very safely that there are so many factors or elements which determine a complex but unique learning and thinking style of an individual. The teacher by identifying the learning and thinking style profiles for each student can use this information in grouping the students, motivating the students, in selecting the appropriate teaching methods, in designing the curriculum, etc. so that each student may get education according to his/her unique style.

**STYLES OF LEARNING**

It is commonly believed that most people favor some particular method of interacting with, taking in, and processing stimuli or information. Based on this concept, the idea of individualized "learning styles" originated in the 1970s, and has gained popularity in recent years. A learning style is the method of learning particular
to an individual that is presumed to allow that individual to learn best. It has been proposed that teachers should assess the learning styles of their students and adapt their classroom methods to best fit each student's learning style.

*Aggarwal (1981)* defined learning style as “the sum total of physical, social, emotional and environmental elements which affect and help an individual in the course of learning”. Since there may be a number of combinations of these factors for different persons, there will always be a unique learning style of every individual.

Over 80 learning style models have been proposed most of which list Visual (learning by seeing), Auditory (learning by hearing) and Kinesthetic (learning by doing) as different styles. In such models, the term ‘multi-modal’ describes people who have more than one strong learning style.

Learning-styles theories have been criticized by many. Some psychologists and neuroscientists have questioned the scientific basis for these models and the theories on which they are based. Many educational psychologists believe that there is little evidence for the efficacy of most learning style models. According to *Stahl (2002)*, there has been an “utter failure to find that assessing children’s learning styles and matching to instructional methods has any effect on their learning”.

*Coffield et al (2004)* identified and reviewed different theories of learning. It criticized most of the main instruments used to identify an individual’s learning style. In conducting the review, Coffield and his colleagues selected 13 of the most influential models for closer study. They examined the theoretical origins and terms of each model and the instrument that was purported to assess types of learning style defined by the model. They analyzed the claims made by the author(s) and independent empirical evidence of the relationship between the ‘learning style’ identified by the instrument and students’ actual learning. Coffield’s team found that none of the most popular learning style theories had been adequately validated through independent research, leading to the conclusion that the idea of a learning cycle, the consistency of visual, auditory and kinesthetic preferences and the value of matching teaching and learning styles were all ‘highly questionable’.
In contrast, a report by Lovelace (2005) provided evidence confirming the validity of Dunn and Dunn’s model, concluding that “matching students’ learning-style preferences with complementary instruction improved academic achievement and student attitudes toward learning”. This meta-analysis does not take account of the previous criticism on the research.

Learning styles and processes of students have some stability over time and across situations, but they also have significant variability. Though there is no limit to the different styles of learning within any one person, however, it is possible to categorize broad bases of visual, auditory and kinesthetic learning styles.

In general, learning style is a way in which a learner approaches a problem or deals with learning situation. It can be considered to be an expression of more fundamental, and relatively stable, components of cognitive style and personality.

**STYLES OF THINKING**

Thinking style is the characteristic way of processing information. It’s the way we acquire knowledge, organize our thoughts, form our views and opinions, apply our values, solve problems, make decisions, plan, and express ourselves to others. People approach learning in a way that is natural to their inborn thinking style. Scientific research identified two distinct groups of people whose thinking styles, and therefore also learning needs, are antipodal: analytics and holistics.

Strong analytics (those who tend to use their left brain hemisphere) are people who enjoy logic, details, and follow sequential steps. They need frequent written feedback, and are often good at mathematics and word games.

Strong holistics (right-brain processors), on the other hand, need to have an overall picture before they can assimilate facts. These students need to understand why something is important before learning it. Strong holistics tend to be good at the arts.

As one of the most recent theories of thinking styles, Sternberg’s (1988, 1997) theory of mental self-government has been propelling increasing research interests among scholars. Using the word "government" as a metaphor, Sternberg
contended that just as there are different ways of governing a society, there are different ways of managing or governing one’s activities. In managing or governing activities, one chooses styles with which one feels comfortable. In addition, styles are not good or bad in themselves; instead, the utility of a style for an individual interacts with the task the individual is performing and the situation in which the task is performed. Moreover, thinking styles are at least partially socialized, and thus can be modified. This theory delineates 13 thinking styles that fall along five dimensions. These are three functions (legislative, executive, and judicial styles), four forms (hierarchical, oligarchic, monarchic, and anarchic styles), two levels (global and local styles), two scopes (internal and external styles), and two leanings (liberal and conservative styles).

The thinking styles described in the theory of mental self-government can be classified into two groups. The first group consists of thinking styles that are more creativity generating and complex, including the legislative, judicial, global, and liberal styles (referred to as Type I thinking styles). The second group is composed of thinking styles that denote a norm favoring tendency and that are more simplistic, including the executive, local, monarchic, and conservative styles (referred to as Type II thinking styles). Students who tended to employ Type I thinking styles also tended to report a deep approach to learning, whereas students who indicated a tendency to use Type II thinking styles also tended to report a surface approach to learning. The social and enterprising types of people tended to use the external thinking style, but not the internal thinking style. The artistic type of people tended not to use thinking styles that require conformity.

When thinking styles were tested against Coopersmith’s (1981) self-esteem construct, students who preferred to use Type I thinking styles indicated significantly higher self-esteem, whereas students who preferred to use Type II thinking styles indicated significantly lower self-esteem (e.g., Zhang, 2001; Zhang & Postiglione, 2001).

With regard to Perry’s (1970, 1981) definition of cognitive development, students who reasoned at a higher cognitive-developmental level tended to use a
wider range of thinking styles, whereas students who reasoned at a lower cognitive developmental level tended to be confined to a narrower range of thinking styles.

The research has demonstrated the importance of thinking styles in a number of aspects relevant to student development, both inside and beyond the classroom. The term student development, initially put forward in the Student Personnel Point of View (American Council on Education, 1937), refers to the development of a student as a whole person. The various student development theories that were published in the late 1960s and early 1970s can be classified into five groups: cognitive development, psychosocial development, typology, person-environment interaction, and models of maturity. However, none of the theories of styles were included in the family of theories of student development until 1996, when scholars (e.g., Evans et al., 1998) included a few theories of styles in their review of student development theories. This inclusion can be regarded as a great step toward linking the theories of styles to the family of student development theories.

In short, thinking styles are measures of peoples’ cognitive and linguistic preferences. These are not measures of thinking ability or of ‘intelligence’. Thinking styles can be identified and categorized as divergent, convergent, logical, creative, problem solving and imaginative.

**SELF ESTEEM**

‘Self’ is the sum total of a person’s ideas about who and what he is, what he appears to be, what he thinks himself to be and what others judge him to be. The self is the person’s essence of his/her existence that is known to him/her. It includes the entire structure of his/her being. In most native sense self can be generally understood as a person’s ideas, feelings and attitudes about one’s self, i.e., how one perceives one’s self.

A person’s behavior in any situation depends upon the way he perceives the situation, his/her self being the part of that perceived situation.
The term ‘self-esteem’, one of the oldest concepts in psychology, first appeared as a coinage of American psychologist and philosopher William James in 1890. It involves one’s mental perception of one’s qualities.

The term self-esteem has been used to refer to some hypothetical overall or global level of self-evaluation or self-regard. The common assumption may or may not be true that global self-esteem is comprised of or based upon a combination of self-evaluation referring to aspects of both the personal self-concepts and the social self-concepts.

Self concept is a life long process that grows and develops continuously in social setting. An individual is not born with the self concept, but he/she forms one as a result of his/her experiences and capacities. It is a result of incidental learning. Self concept is an acquired image of the individual on the basis of which he/she develops his/her self-esteem.

Coopersmith (1967) reported that a student’s success in school is markedly affected by his/her sense of self-esteem.

According to International Dictionary of Education (1977) “self-esteem is the person’s judgment of the self concept he/she has formed, estimate of whether his/her self concept reaches his/her standards and value”.

Colman (2001) defined self-esteem as “one’s attitude towards oneself or one’s opinion or evaluation of oneself, which may be positive (favorable or high); neutral; or negative (unfavorable or low)”.

Rodewalt & Tragakis (2003) reported that self-esteem has become the third most frequently occurring theme in psychological literature: as of 2003 over 25,000 articles, chapters, and books referred to the topic.

In psychology, self-esteem (also known as “self-worth” or “self-confidence”) includes a person’s subjective appraisal of himself/herself as intrinsically positive or negative to some degree. It involves both self-relevant beliefs (e.g., “I am competent / incompetent”) and associated self-relevant emotions (for example: triumph / despair, pride / shame). It also finds expression in behavior (for example: assertiveness / timorousness, confidence / caution). In addition, one can construe self-esteem as an
enduring personality characteristic (trait self-esteem) or as a temporary psychological condition (state self-esteem). Finally, self-esteem can apply specifically to a particular dimension (for example: "I believe I am a good writer, and feel proud of that in particular") or have global extent (for example: "I believe I am a good person, and feel proud of myself in general").

There are two kinds of esteem needs – the need for respect from others and the need for self-respect. The (Maslowian) self-esteem entails competence, confidence, mastery, achievement, independence, and freedom. Respect from others entails recognition, acceptance, status, and appreciation. Without the fulfillment of these needs an individual may feel discouraged, weak and inferior.

Though there exist differing views regarding the precise definition of self-esteem, in "common use" definition: self-esteem is how one regards oneself (or how one appears to regard oneself). Psychologists believe that a "self esteem" that depends on external validation of the self (or other people's approval), is not, in fact, "true" self-esteem. Branden labeled this as "pseudo self-esteem", arguing that "true self-esteem" comes from internal sources, such as self responsibility, self sufficiency and the knowledge of one's own competence and capability to deal with obstacles and adversity, regardless of what other people think.

In Branden's description (1969) self-esteem includes the following primary properties:

1. Self-esteem as a basic human need, i.e., "...it makes an essential contribution to the life process", "...is indispensable to normal and healthy self-development, and has a value for survival".
2. Self-esteem as an automatic and inevitable consequence of the sum of individuals' choices in using their consciousness.
3. Something experienced as a part of, or background to, all of the individual’s thoughts, feelings and actions.

He defined self-esteem as "...the experience of being competent to cope with the basic challenges of life and being worthy of happiness". This two-factor approach, as some have also called it, provides a balanced definition that seems to be capable of
dealing with limits of defining self-esteem primarily in terms of competence or worth alone.

The levels and quality of self-esteem, though correlated, remain distinct. Level-wise, one can exhibit high but fragile self-esteem (as in narcissism) or low but stable self-esteem (as in humility). However, investigators can indirectly assess the quality of self-esteem in several ways:

1. in terms of its constancy over time (stability);
2. in terms of its independence of meeting particular conditions (non-contingency);
3. in terms of its ingrained nature at a basic psychological level (implicitness or automaticity).

Critics see the all pervading importance given to self-esteem in popular culture and in modern psychology as misleading and dogmatic. Self-esteem has also been mockingly defined as "an erroneous appraisement" because now the “Good” and “Bad” character are known as "personality differences".

A review of self-esteem literature by Baumeister confirmed that high self-regard per se is not necessarily good nor does it translate into higher estimates by others of a person's intellect, appearance or virtue. Self-esteem as panacea is "a very compelling illusion," because it correlates with happiness and other good things, says Baumeister, but psychologists "were a little too eager in promoting the program before the data were in." Psychological literature and popular culture both concentrate on the presence or absence of high self-esteem; however some evidence suggests that the overemphasis on the self-esteem mantra can lead to rapid falls when the self becomes invalidated in the domains that one considers important. In addition this pursuit may have negative consequences on the welfare of society as a whole. Some social constructionists argue that modern day America with its overwhelming cultural bias towards self-enhancement has fabricated and validated the dogma of self-esteem as a universal human goal that all must strive towards perfecting. This fails to consider the absence of such an emphasis in other flourishing cultures, where high self-esteem is not as celebrated and central a concept. Eastern philosophy, particularly Buddhist and Hindu thought, see the self in its limited form as illusory; it perceives a
"true self" as a sublime and transcendent entity, whose nature remains hidden from the limited or egoic self.

In the words of Ruggiero (2000) the concept of self-improvement has undergone dramatic change since 1911. Rights have replaced responsibilities. The research on egocentricism and ethnocentricism that informed discussion of human growth and development in the mid-20th century is ignored; indeed, the terms themselves are considered politically incorrect. A revolution has taken place in the vocabulary of self. Words that imply responsibility or accountability – self-criticism, self-denial, self-discipline, self-control, self-effacement, self-mastery, self-reproach, and self-sacrifice – are no longer in fashion. The language most in favor is that which exalts the self – self-expression, self-assertion, self-indulgence, self-realization, self-approval, self-acceptance, self-love, and the ubiquitous self-esteem.

**Self-esteem, academic achievement and relationships:**

For long it has been assumed as a matter of course that students' self-esteem act as a critical factor in the grades that they earn in school, in their relationships with their peers, and in their later success in life. Given this assumption, many programs have been created increase the self-esteem of students, assuming that grades would increase, conflicts would decrease, and that this would lead to a happier and more successful life.

Peer-reviewed research undertaken since then has not validated previous assumptions. Recent research indicates that inflating students' self-esteem in and of itself has no positive effect on grades. One study has shown that inflating self-esteem by itself can actually decrease grades (Baumeister, 2005).

High self-esteem correlates highly with self-reported happiness. However, it is not clear which, if either, necessarily leads to the other (Baumeister, 2003).

Some psychologists believe in a cause-and-effect relationship between high self-esteem and academic success. Ethnic identity may also play a role in the correlation between self-esteem and academic performance. Psychologists have acknowledged the importance of ethnic identity, but have varying views of its relevance to academic success. Some research evaluates the extremes of ethnic...
identity, with those who identify themselves as pro-black experiencing high self-esteem while those whose ethnic identity relates to anti-white behaviors display low self-esteem. Other researchers have built upon this idea and developed questions about the relevance of ethnic identity in the world of academia for African-American students. The field seems amenable to further study of larger numbers of African-American adolescents or Asian-Americans or Asian-Europeans, etc. to accurately identify the role of ethnic identity in the development of self-esteem.

The esteem need most clearly suggests seeking recognition as a worthwhile person. Satisfaction of the esteem need is accompanied by feelings of confidence, worth, strength, and usefulness. The thwarting of these needs produces feelings of inferiority, weakness, or helplessness (Klausmeier & Goodwin, 1971).

Simply put, self-esteem is how one feels about oneself. It critically influences everything, from performance at work, relationships, and role to accomplishments in life. It is a major component in determining success or failure. There is a direct relationship between people’s feelings and their productivity.

STUDY HABITS

The term ‘habit’ refers to a customary pattern of behavioral, cognitive or emotional response, predictable according to the conditions operating at the time of response and acquired by a process of learning or the underlying ‘set’ or tendency towards that pattern of response. Habits can be food habits; play habits; work habits; study habits; etc.

Habits are the true indicators of the individuality of a person. ‘Study habits’ relate to the study behavior of an individual. The study habits of a learner do not mean hardworking and reading for hours, but making a mental set up for study; the ability to schedule his/her time; ability to concentrate easily and for long time; ability to develop different levels of cognition; habit of preparing class-notes; reading one’s study notes; habit of studying different types of books, newspapers and magazines, etc. other than the textbooks; interaction with his/her teachers or parents or friends for better learning; proper revision of topics and tasks already learned; skills in reading and so on.
The term ‘study habit’ implies a sort of more or less regular method of studying. Every individual has got his own habit of study. Some individuals believe in the habit of regularity, punctuality and planning while others have haphazard way of doing work.

Study habits have been defined as “the sum total of all the habits, determined purposes and enforced practices that the individual uses in order to learn”. Thus it is necessary for the students to develop the special study habits and skills. A well formed habit furnishes its own source of motivation.

In the process of learning, habitual ways of exercising and practicing the abilities for learning are considered as study habits of the learners. The pattern of behavior adopted by students in the pursuit of their studies is considered under the caption of study habits. In other words, study habits reveal the personality of students in action while studying. Thus, learner’s learning character is characterized by his/her study habits. Study habits serve as a vehicle of learning. It may be seen as both – the ends and means of learning.

The process of study habits is of the immense importance both from the theoretical and practical points of view. Theoretically, effective learning depends upon the development of good study habits. One of the continuous objectives of teaching should be the improvement of study habits and studying skills of the students. From the practical point of view, the problem is more important. Very often teachers come across such students who appear to be average in scholastic aptitude, yet they give very poor performance in their courses of study. A large number of them seem to have faulty study habits. Proper guidance would help them to change their faulty study habits into desirable ones.

No two people study the same way, and there is little doubt that what works for one person may not work for another. However, there are some general techniques that seem to produce good results. We all wish that every subject that we have to take should be so interesting that studying it is not work but pleasure – we can only wish.

Everyone is different, and for some students studying and being motivated to learn comes naturally. For the rest, less fortunate ones, studying is tough not for lesser
I.Q. but for poor study skills. The results of poor study skills are wasted time, frustration, and low or failing grades.

There are many intervening factors which influence the study habits, such as, the physical conditions at the place of study; time of the study preferred; the time lapse between study sessions; the degree of noise tolerance in the background; etc. Many study habits appear detrimental to efficient learning, whereas others seem to facilitate it.

According to Mukhopadhyaya & Sansanwal (1983), the study habits are “the sum total of all the habits determined purposes and enforced practices such as concentration, drilling, task orientation etc. that the individual has developed in order to learn”.

Like all other work habits, study habits play an important part in human performance. ‘Habit’ implies a fixed, routine response to a specific situation. ‘Study habits’ means the habits an individual might have formed with respect to his learning activities.

Study habits form an integral factor for the academic achievement of the students. Healthy study habits help the individual to surpass the limits circumscribed by his intelligence. Unhealthy study habits become a hurdle in the way of achievement of the individual and do not let him/her make the best use of his/her potentialities, dragging him/her to poor performance in academic domain.

Study habits are as much important for higher academic achievement of students as it is important for their fruitful use of leisure time. Thus, ‘study habit’ as a habit is generic than specific in terms of its importance.

It is a common belief that a man who does not have good study habits can not be an efficient learner. Academic career of the students largely depends upon the study habits. Proper study habits established during the academic years have a lasting impact that is carried over into later life. This is true especially in case of professionals like doctors, engineers, lawyers, etc, who must constantly be on their toes in order to keep pace with the latest developments in their fields.
ACADEMIC ACHIEVEMENT

Academic achievement is related to the acquisition of principles and generalizations and the capacity to perform efficiently certain manipulations of objects, symbols and ideas. Achievement in the school/college may be taken to mean any desirable learning that is observed in the students. Since the word “desirable” is a value judgment, it is obvious that a particular learning may be referred to as achievement or otherwise depending on whether it is considered desirable or not. Thus, any behavior that is learned may come within the scope of achievement. Learning is not only limited to mere acquisition of information, but it also includes attitudes, interests, values, etc. Therefore, the acquisition of desirable characteristics is as much as achievement as is knowledge of the principles of science or facts of world history.

“Academic achievement is one part of wider term, i.e., educational growth, which includes knowledge attained or skills developed in the school subjects which is usually evaluated by test scores or marks assigned by teachers or both.”

- Good (1973)

“Achievement is the attained ability or degree of competence in school tasks, usually measured by standardized tests and expressed in age or grade units based on norms derived from a wide sampling of pupils’ performance.”

- Roe (1960)

The educational achievement and performance play a crucial role in determining the status of the individuals in the society. It is reflected in the form of degrees and diplomas which a person earns and which gives an identity of scholarship to the individual. A good academic performance is a key to success in making progress from schools to colleges to universities and later in the world of work. As the competition is increasing day by day, to be able to get into the race and make progress in it depends to a large extent on the academic achievement and credentials of the individual.
Academic achievement has become an important means of seeking admission to various educational and professional courses like Medicine, Management, Engineering, etc. In a society, a person is held in esteem by his/her academic performance. It builds the self-image and affects the entire personality of the individual. It also leads to more openings for better job opportunities. Academic achievement is not only important at individual level but a nation’s whole progress depends on it because it raises the academic standards of its countrymen and thus provides brilliant scholars, executives, academicians, etc.

Factors affecting academic achievement:

(A) Personal factors: These factors are related to self of the individuals and are further categorized as:

(i) Cognitive factors: - Intelligence; Creativity; Aptitude.
(ii) Non-cognitive factors: - Personality; Self-concept; Locus of control; Physical, mental and emotional health.
(iii) Factors related to learning outcomes: - Attention; Motivation; Anxiety; Level of Aspiration; Learning Styles; Reading and writing skills; Mathematical computations; Study habits; etc.

(B) Social factors: these are related to the surroundings of the individual.

(i) Home environment: - Family environment; Socio-economic status; Parental involvement; Parental attitude; Child rearing practices.
(ii) School environment: - Classroom environment; Teacher’s attitude; Peer relationships.

From above discussion it is clear that the evaluation of the academic achievement of students is based on the premise that they have diverse capabilities, interests and individual patterns of growth and learning. It is essential that the professional staff have adequate information to assess a student's educational needs, growth patterns and other factors necessary to design instructional plans for the student. Sharing of information among parents/guardians, teachers and students is an integral part of this evaluative process.
CONCLUSION

People who show a significant discrepancy between their measured intelligence and their academic performance may have a learning disability. Learning disabilities are often seen in people with average or above average intelligence. There are several kinds of learning disabilities. These disorders are caused by dysfunctions in the brain; however, although brain imaging studies are helping to locate areas of dysfunction, specific neurological causes have not yet been found. Accordingly, most researchers describe learning disabilities in terms of dysfunctional information processing.

While neurological studies are being carried on by the neurologists to locate the specific area of the brain causing the problem, the social-, educational- and behavioural- researchers must conduct studies to identify those behavioural characteristics which make people with learning disabilities special. Such behavioural studies may provide insights and answers to handle the problems associated with the learning disabilities.