CHAPTER-I
INTRODUCTION

1.1.0 INTRODUCTION

The present study was experimental in nature and belongs to the area of Special Education. It was related to the Dyslexic children. In this study an attempt was made to identify dyslexic students studying in various schools of Nawanshahr and treating them with the help of Ron Davis and Eclectic Approaches. Through this research, an attempt was made to answer questions such as: Does the incidences of dyslexia exists in the population? Are the Ron Davis and Eclectic Approaches superior than Traditional Approach in improving reading ability of dyslexic children when groups were matched with respect to Pre-reading ability? Likewise, answers to many other questions were sought through this study.

In the present chapter the details related to Concept of Learning Disabled Children, their characteristics, their types, Concept of Dyslexia, its types, its history, its characteristics, its symptoms, factors associated with it, its causes, its treatment, details of Alphabetic Phonic Method, Multisensory Structured Linguistic Method, Behaviour Modification Method, Eclectic Approach and Ron Davis Approach, Rationale of the Study, Statement of the Problem, Objectives, Hypotheses and Delimitations of the Study are given in separate captions.

1.2.0 CONCEPT OF LEARNING DISABLED CHILDREN

It is new and rapid growing field in special education. This term was first used by Dr. Samuel Kirk to describe children who have serious learning problem but don’t have other severe handicap. There are many organisations in the world which provide funds for learning disabled programmes. Today learning disability is considered as a separate handicapping condition.

1.2.1 Learning Disability

Kirk (1962) “A learning disability refer to a retardation, disorder or delayed development in one or more of the processes of speech, language reading, spelling,
writing or arithmetic resulting from a possible cerebral dysfunction and/or emotional or
behavioural disorder and not from mental retardation, sensory deprivation, or cultural or
instructional factors.”

Kass said, “A child with learning disability is one with significant
intradevelopmental discrepancies in central motor, central perception, or central cognitive
processes which lead to failure in behavioural reactions in language, reading, writing,
spelling, arithmetic and/or content subjects”.

The National Advisory Committee on Handicapped Children (USA)(1968)
“Learning Disabled Children exhibit disorder in one or more basic psychological
processes involved in understanding and in using spoken or written languages. The
disorders are manifested in listening, thinking, talking, reading, writing, spelling and
arithmetic. They include conditions which are referred to as perceptual problems, brain
injury, minimal brain dysfunction, dyslexia, developmental aphasia etc. They do not
include learning problems which are primarily due to visual, hearing or motor handicaps,
mental retardation, emotional disturbance, or the environmental disadvantage.”

The National Joint Committee of Learning Disabilities (USA, 1981) gave the
following definition of learning disability which is unanimously accepted at international
level:

“Learning disability is a generic term that refers to 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 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, psychogenic factors) it is not the direct result of
these conditions or influences”.

Learning disabled child feels difficulty in keeping pace with normal school work.
He is not able to attain what he should. He falls far behind other children of his age in
matters of study.
1.2.2 **Characteristics of Learning Disabled Children**

Some Learning Disabled Children have problem in reading, some in comprehension, some in writing and others in arithmetic reasoning. Some may have problems in telling a time, locating a place on map. Because of this heterogeneous behaviour of Learning Disabled Children, it is very difficult to mention all the characteristics of Learning Disabled. But some of most frequent and widely acceptable characteristics of Learning Disabled Children are as under.

- Learning Disability is not physically apparent.
- Common characteristic is specific and significant achievement deficiency in the presence of adequate overall intelligence.
- Impulsive behaviour in talk and action.
- Inability to focus on one activity.
- Easily distractible.
- Low ability Level
- Either they fail to react or seem to do everything in slow motion or they show the following behaviours – constant, motor activity, restless, tapping of finger or foot, jumping out of seat, skipping from task to task etc.
- Inability to shift from one activity to another.
- Easy onset of fatigue.
- Wrong or inappropriate perception.
- Short attention span.
- Face difficulty in discrimination, have poor handwriting.
- Inability to discriminate between different sounds.
- Lack social competence.
- Exhibit rapid mood variation
- Exhibit explosive behaviour
- Disoriented in time, experience trouble relating to concepts and have difficulty in judging distance and size.
- Poor work habits, organise work poorly and rush through work carelessly.
- Difficulty in understanding and remembering oral message.
1.2.3 Types of Learning Disabilities

Some of the classifications of learning disabilities are as under

1) According to model of learning disabilities

This model distinguishes four stages of information processing used in learning: input, integration, memory and output.

a) Input: is the process of recording in the brain information that comes from the senses.

b) Integration: is the process of interpreting this information

c) Memory: is its storage for later retrieval

d) Output: of information is achieved through language as motor activity.

Learning disabilities can be classified by their effect at one or more of these stages. Each child has individual strengths and weaknesses at each stage.

a) Input

The first major type of problem at the input stage is a visual perception disability. Some students have difficulty in recognizing the position and shape of what they see. Letters may be reversed or rotated, for example the letters d, b, p, q and g might be confused. The child might also have difficulty distinguishing a significant form from its background. People with this disability often have reading problems. They may jump over words, read the same line twice or skip lines. Other students have poor depth perception or poor distance judgement. They might bump into things, fall over chairs or knock over drinks.

The other major input disability is in auditory perception. Students may have difficulty understanding because they do not distinguish subtle differences in sounds. They confuse words and phrases that sound alike for example “blue” with “blow” or “ball” with “bell”. Some children find it hard to pick out an auditory figure from its back
ground. They may not respond to the sound of a parent’s or teacher’s voice and it may seem that they are not listening or paying attention. Other process sound slowly and therefore cannot keep up with the flow of conversation inside or outside the classroom. Suppose a parent says, “It’s getting late. Go upstairs, wash your face, and get into your pajamas. Then came back down for a snack”. A child with this disability might hear only the first part and stay upstairs

b) Integration

Integration disabilities take several forms, corresponding to the three stages of sequencing, abstraction and organization. A student with sequencing disability might recount a story by starting in the middle, going to the beginning and then proceeding to the end. The child might also reverse the order of letters in words, seeing “dog” and reading “god”. Such children are often unable to use single units of memorized sequence correctly. If asked what comes after Wednesday, they have to start counting from Sunday to get the answer. In using a dictionary they start with “A” each time.

The second type of integration disability involves abstraction. Students with this problem have difficulty in inferring meaning. They may read a story but not be able to generalize from it. They may confuse different meaning of the same word used in different way. They find it difficult to understand jokes, pans or idioms.

Once recorded, sequenced, and understood, information must be organized-integrated into a constant flow and related to what has previously been learned. Students with an organization disability find it difficult to make bits of information cohere into concepts.

They may learn a series of facts without being able to answer general questions that require the use of these facts.

c) Memory

Disabilities also develop at the third stage of information processing, memory. Short-term memory retains information briefly while we attend to it or concentrate upon it. For example, most of us can retain the 10 digits of a long distance telephone number long enough to dial, but we forget it if we are interrupted. When information is repeated often enough, it enters long-term memory, where it is stored and can be retrieved later.
Most memory disabilities affect short-term memory only, students with these disabilities need many more repetition than usual to retain information.

d) Output

At the fourth stage, output, there are both language and motor disabilities. Language disabilities almost always involve what is called “demand language” rather than spontaneous language.

Spontaneous language occurs when we initiate speaking, select the subject, organize our thoughts, and find the correct words before opening our mouths. Demand language occurs when someone else creates the circumstances in which communication is required. A question is asked, and we must simultaneously organize our thoughts, find the right words, and answer.

A child with a language disability may speak normally when initiating conversation but respond hesitantly in demand situations—pause, ask for the question to be repeated, give a confused answer, or fail to find the right words.

Motor disabilities are of two types: poor co-ordination of large muscle groups, which is called gross motor disability and poor co-ordination of small muscle group, which is called fine motor disability. Gross motor disability makes children clumsy. They stumble, fall, and bump into things, they may have difficulty in running, climbing, riding a bicycle, buttoning shirts or tying shoelaces. The most common type of fine motor disability is difficulty in coordinating the muscles needed for writing. Children with this problem write slowly and their handwriting is often unreadable. They may also make spelling, grammar and punctuation mistakes.

2) Another classification of the learning disabilities

According to this classification of learning disabilities, there are three types of learning disabilities

(A) Academic Skills Disorder

I. Developmental Reading Disorder (dyslexia)

Problems with reading, making sense out of written language.

II. Developmental writing disorder (dyslexia)
Problems with handwriting or with writing in a way that makes sense to others or yourself. You literally can't read your own handwriting.

III. Developmental Arithmetic Disorder (Dyscalculia)
Problems with calculations or abstract mathematical concepts

(B) Speech and Language Disorders
I. Developmental Articulation Disorder
Problems producing speech sounds pronouncing certain letters or letter combinations.

II. Developmental expressive language disorder.
Problems using spoken language to communicate, expressing yourself verbally.

III. Developmental receptive language disorder (Auditory Processing Disorder) Problems understanding what other people say, you hear the words and don’t process them as thoughts

(C) Other Learning Disabilities
I. Visual Processing Disorder
Problems making sense of information taken in through the eyes, affects ability to recognize spatial relationships, identify distinctive shapes and objects, or differentiate part of an image from the whole.

II. Developmental Motor Skill Disorder (Dyspraxia)
Problems with fine motor skills, clumsiness with tools and your own fingers and hands.

III. Non verbal Learning disorder
Problems understanding non verbal communication, this person is highly comfortable with language but can have trouble with organizational, social and motor skills.

Brazeau (2005) has given following subtypes of learning disabilities:
Subtypes of Learning Disabilities

Most Common Learning Disabilities Subtypes

Dyslexia and Related Disorders (80-90%)

Dyslexia is characterized by difficulties with reading, spelling, writing, and speaking. Difficulties in mechanical arithmetic caused by sequential and rote memory deficits.

Non-Verbal Learning Disabilities (10-20%)

Non-Verbal LD is characterized as psychosocial and adaptational disorder deficits as well as by a lack of coordination and graphomotor skills (in the early years), visual perception, reading comprehension, mathematics, science and mechanical arithmetic caused by visual-spatial deficits.

Academic deficits:
- poor reader
- poor oral language
- poor spelling
- difficulties with multiplication tables
- may have problems keeping columns straight if left-handed
- sequencing difficulties caused by memory of movement: skills
- poor phonetic skills (word pronunciation)
- poor motivation

Academic assets:
- good reading comprehension
- good math reasoning
- good bimanual skills that rely on spatial abilities
- sees "the big picture"
- good problem-solving skills
- easily reads between the lines

Physical/Social:
- may have good physical abilities or may have physical awkwardness caused by impaired memory of movement skills
- "social skills" usually not impaired by dyslexia

Asperger's Syndrome

is a milder variant of Autistic Disorder.

Non-Verbal Learning Disabilities (Right Hemisphere Deficits)

Academic deficits:
- poor reading comprehension
- poor math reasoning
- difficulties with higher math skills that rely on spatial abilities
- problems keeping columns straight because of visual perception deficits
- sees "the big picture" usually not impaired by dyslexia
- handwriting difficulties in early grades caused by fine motor delays and poor visual-spatial skills.

Academic assets:
- early reader or good reader after Grade 3
- excellent rote memory (tape recorder quality)
- good spelling
- good phonetic skills (word pronunciation)
- excellent vocabulary

Physical/Social:
- physical awkwardness
- poor social skills
- difficulty adjusting to novel situations
- excellent attention to detail but misses the "big picture"
- inability to read between the lines
- easily reads between the lines
- likely have trouble making and/or keeping friends
- "cocktail party speech" pattern
1.3.0 MEANING OF DYSLEXIA

People are often identified as dyslexic when their reading achievement falls substantially below expected levels of their age and education. Their reading or writing problems cannot be explained by a lack of intellectual ability, inadequate instruction, or sensory problems such as poor eyesight. Today dyslexia is thought to be a neurological disorder with biochemical and genetic factors characterized with difficulties with accurate and/or fluent word recognition, spelling and decoding abilities.

Acc to British Psychological Society

Dyslexia is evident when accurate and fluent word reading and/or spelling develops very incompletely or with great difficulty. This focuses on literacy learning at ‘word level’ and implies that the problem is severe and persistent despite appropriate learning opportunities. It provides the basis for a staged process of assessment through reading.

IDA

Dyslexia is a specific learning difficulty that is neurobiological in origin. It is characterized by difficulties with accurate and/or fluent word recognition and by poor spelling and decoding abilities. These difficulties typically result from deficit in the phonological component of language that is often unexpected in relation to other cognitive abilities and the provision of effective classroom instruction, experience that can impede growth of vocabulary and background knowledge.

WHO

A disorder manifested by difficulty in learning to read, despite conventional instruction, adequate intelligence and sociocultural opportunity. It is dependent upon fundamental cognitive disabilities which are frequently of constitutional origin.

There are two forms of Dyslexia-Developmental Dyslexia and Acquired Dyslexia. Developmental Dyslexia is a condition or learning disability, which causes difficulty with reading and writing. Its standard definition is “a difficulty in reading and writing in spite of normal development of intelligence, cognitive and sensory abilities”. It appears to be present from birth and is the result of developmental differences in the brain. Many
studies have shown that often there are family members who show or have shown similar difficulties, which suggest genetic, or developmental cause of dyslexia. Acquired Dyslexia is also known as ‘Alexia’. It refers to the loss of reading ability following brain damage.

1.3.1 Types of Dyslexia

Dysnemkinesia (motor) – A deficit in remembering how to do the movements needed for writing.

For example: The student will make reversals.
The student will write b instead of d.

Dysphonesia (auditory) - A deficit in the ability to sound off, to syllabicate, to pronounce and to distinguish sounds of unfamiliar words.

For example: The student reads house instead of home.
The student writes aminal instead of animal.

Dyseidesia (visual) - A deficit in the ability to recognize whole words by sight and match them to whole-word sounds.

For example: The student reads ball instead of bell.
The student writes enuf instead of enough.
1.3.2 History of Dyslexia

Dyslexia is not something new as can be seen from the brief history of dyslexia which is retrieved from the website www.dyslexiainireland/briefhistoryofdyslexia.mht

<table>
<thead>
<tr>
<th>Date</th>
<th>Details</th>
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<tbody>
<tr>
<td>1861</td>
<td>Broca discovers the brain's language areas in the left hemisphere.</td>
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<td>1874</td>
<td>Wernicke discovers another language related areas in and around the sylvian fissure.</td>
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<td>1878</td>
<td>A German doctor, Dr. Kussmaul, describes a man who was of normal intelligence and despite was unable to learn to read even though he received an 'adequate' education. He called this condition &quot;reading blindness&quot;.</td>
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<td>1886</td>
<td>Another German doctor, Dr Berlin, coins the word dyslexia to describe this condition.</td>
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<td>1892</td>
<td>Dejerine discovered that damage to the left angular gyrus, a small area in the posterior neocortex, resulted in reading difficulties.</td>
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<tr>
<td>1895</td>
<td>The Scottish eye surgeon Dr. James Hinshelwood publishes a report about a condition he calls &quot;word blindness&quot;.</td>
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<tr>
<td>1896</td>
<td>Dr. Pringle Morton describes a 14 year old boy with reading difficulty. The boy's teacher wrote:- &quot;he would be the smartest lad in the school if instruction were entirely oral&quot;.</td>
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| 1925 or 1928 | Dr Samuel T. Orton, an American neurologist proposed the first theory of specific learning difficulty. He described 15 children who shared some unusual quirky characteristics. In addition to confusing the letter b with d and the letter p with q, some could read more easily if they held pages up to a mirror, and a few were rapid mirror writers. Orton proposed that the term "strephosymbolia," which means "twisted symbols," replace "congenital word blindness" to describe their disability. The term strephosymbolia was later dropped replaced by "dyslexia". He was optimistic that many of the children could be taught to read with new methods that exploited their other senses -- touch and hearing -- which were
not impaired.

From 1932-1936, Dr. Orton was Professor of Neurology and Neuropathology at Columbia University and Neuropathologist at New York Neurological Institute.

1936 Anna Gillingham analysed the structure of language and combined it with Orton's recommended teaching procedures. With Bessie Stillman, she published "Remedial Training for Children with Specific Disability in Reading, Spelling and Penmanship". This became known as the "Gillingham Manual". This teaching method is still known today as the Orton-Gillingham Method. There are many variations of the method but the fundamentals of the methodology remain the same.

Orton-Gillingham Variations (This is not a complete list, there may be more)

- Barton Reading & Spelling System
- Slingerland.
- Herman Method.
- Lindamood Auditory Discrimination in Depth. Recently renamed to LIPS, which stands for Lindamood Instruction in Phonemic Segmentation.
- MTA (Multi-sensory Teaching Approach)
- Alphabetic Phonics.
- Wilson Reading System.
- Project Read.
- Recipe for Reading

1939 Dr. Alfred Strauss & Dr. Heinz Werner publish their description of children with a wide range of learning difficulties. They emphasised the importance of looking at each child individually to access their particular needs.

1946? Dr Samuel T. Orton & Anna Gillingham found the Orton Institute.

1968 The Research Group on Developmental Dyslexia from the World Federation of Neurology recommend the two definitions of dyslexia in use today.
Specific Developmental Dyslexia, is a disorder manifested by difficulty in learning to read despite conventional instruction, adequate intelligence, and socio-cultural opportunity. It is dependent upon fundamental cognitive disabilities which are frequently of constitutional origin.

Dyslexia is defined as a disorder in children who, despite conventional classroom experience, fail to attain the language skills of reading, writing and spelling commensurate with their intellectual abilities.

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
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<tr>
<td>1971</td>
<td>Isabelle Liberman and other researchers amassed an enormous amount of evidence proving that: &quot;deficits in phonological processing underlie most cases of reading disability&quot; and &quot;arise from weaknesses within the language system (in the brain) itself, not from more general sensory or cognitive impairments&quot;.</td>
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<td>1976</td>
<td>The Aston Index test for dyslexia developed. A particularly thorough screening battery suitable for administration by teachers. Unfortunately the complexity of the test makes it difficult for the classroom teacher to administer on a routine basis.</td>
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<td>1977</td>
<td>Public law 94-172 is passed in the USA ensuring the rights of American children with SLD to 'appropriate evaluation' and 'management' of their problem.</td>
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<td>1979 to 1985</td>
<td>Dr. Galaburda performed autopsies on 8 dyslexic brains and found a 15% rate of unusual bilateral symmetry, and 30-100 abnormalities per brain, clustered around the sylvian fissure and mostly in the left hemisphere. He also found abnormal smallness and poor lamination of the folds and convolutions. Abnormal accumulations of neurons and ectopias (neurons out of place) distorted the surface and were disorganized in the subsurface. In 1984 Galaburda states that &quot;dyslexia is a normal variation of the human brain, not a disorder. During fetal development, there is superior development of the right hemisphere&quot;.</td>
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<tr>
<td>1980</td>
<td>The Bangor Dyslexia Test developed. Takes only around 10 minutes to administer, but some aspects require 'clinical judgement' to derive a score.</td>
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1981 The UK passed the Education Act of 1981. This states that children with learning difficulties of all kinds are entitled to appropriate evaluation and help.

1998 Professor John Stein of the Oxford University Laboratory of Physiology. Professor Stein and Professor Tony Monaco of the Welcome Trust Centre for Human Genetics, Oxford find the approximate site of genes for dyslexia. The research confirms an earlier American study which produced similar findings but was unable to establish such a close link.

Unknown Psychologists from Sheffield University, led by Professor Roderick Nicolson, claim to have linked dyslexia with reduced activity in a primitive part of the brain, called the cerebellum, that controls movement, coordination and balance. This contrasts with the older, more established view that dyslexia is the result of a problem in the highly developed language centres of the brain found in the cerebral cortex. The researchers, compared the brain activity of six normal and six dyslexic adults using a scanning technique called positron emission tomography (PET).

1998 Dr Caroline Rae and colleagues from Sydney, Australia, and Oxford, UK, used a (non-invasive) imaging method known as magnetic resonance spectroscopy. The researchers obtained images of the brains of 14 dyslexic men and 15 control men aged between 21 and 41 years. The researchers found that in two areas of the brain the ratios of certain chemicals differed between dyslexic and non-dyslexic men. Dr Rae and her colleagues suggest that such differences indicate altered development of the brain of dyslexics.

Unknown An international team of researchers, led by Dr Torii Fagerheim, from Norway, Belgium and the United States discovered a Norwegian family with a large proportion of dyslexic members. They tested more than 30 members of the family to see how well they could read and recognise unfamiliar words. From this, 11 people were found to be dyslexic. The scientists then took blood samples from all the family members to analyse their genes. And they discovered one short sequence of genetic material
1999 The Irish government makes public the White Paper on Early Childhood Education "Ready to Learn". Although this document is for Special Needs Education it does contain the two following quotes.

"Since the 1930s, there has been research evidence that the provision of stimulation and education at an early, pre-school age tends to accelerate the physical, social and cognitive development of children with disabilities."

Section 7.6 contains the following understatement.

"The range of services already provided by the Department of Education and Science, although relatively limited to date, typifies the range of services that may be provided more generally.

1.3.3 Common Myths about Dyslexia

- Dyslexia is rare. (23% of the population)
- Dyslexics will not succeed in life. (A great majority of dyslexics have invented or done something great for humanity).
- Dyslexia will prevent your child from succeeding. (Your child should succeed not despite dyslexia but because of it.)
- Dyslexics are learning disabled. (Dyslexics can also be learning disabled but usually they only become learning disabled because of ineffective teaching.)
- It is difficult to diagnose. (It is easy once we know what we are looking for)
- Reading difficulties disappears with age. (Not if it’s dyslexia)
- Repeating a school grade can remove dyslexia. (To do more of the same that made you fail in the first place)
- Dyslexia is limited to those who reverse letters or numbers. (Only 10% of dyslexics reverses letters)
- Dyslexia cannot be diagnosed until a child is in third-grade. (It should be diagnosed in kindergarten)
- Only a psychologist can assess individuals with dyslexia. (Only if he has received training in the assessment of people with dyslexia).
Dyslexia is...
...one specific type of learning disability.
...a language based disorder.
...difficulty in single word decoding.
...characterized by an underlying weakness in phonological awareness (lack of awareness of sounds in words).
...an unexpected gap between learning potential and academic achievement.
...a difference in the structure and function of the brain.
...difficulty with academic language skills (primarily reading, writing and spelling).
...lack of talent for using print language.
...a matter of degree mild, moderate or severe.

Dyslexia is not...
...a lack of intelligence or ability to learn.
...a behavioral problem.
...a psychological problem.
...a vision problem (dyslexics do not “see letters backwards”).
...a disease; there is no cure.
...a balance problem.

1.3.4 Primary Characteristics of Dyslexia

- Lack of awareness of the sounds and structure of words in our language (sound order, rhymes, or sequences of syllables)
- Difficulty in learning the names of the letters of the alphabet
- Difficulty saying the alphabet correctly in sequence
- Difficulty forming the shapes of the letters
- Difficulty writing the alphabet correctly in sequence
- Reversals of letters or sequence of letters in words when read or written:
  p as q,
  b as d,
  was as saw,
quiet as quite
- Difficulty in learning and remembering printed words as whole units
- Repeated spelling errors
- Difficulty with handwriting
- Slow rate of writing
- Difficulty with reading comprehension

### 1.3.5 Secondary Characteristics of Dyslexia
These features may or may not accompany dyslexia:
- Delay in spoken language
- Difficulty finding “right” word
- Late establishing preferred hand for writing
- Late learning right, left and other directionality components
- Problems learning concepts of time and temporal sequencing
- Family history of similar problems

### 1.3.6 Typical Classroom Performances
- Downward trend of grades from year to year
- Inconsistent grades from day to day
- Inconsistent performance on standardized tests
- Inordinate amount of time spent on homework
- Good grades often accompanied by disproportionate effort
- Homework quality often superior to classwork
- Confusion with math symbols, but not computation/calculation
- Difficulty with word problems
- Memorized spelling better than spontaneous spelling
- Compensation for poor reading by using pictures, context clues, teacher prompts, etc.
- Handwriting shows irregular letter shapes and uneven pencil pressure
- Preference for oral performance over written
- Deteriorating organization and study habits
1.3.7 Typical Behavioral Responses

- Stress associated with performance
- Short attention span
- Withdrawal
- Inappropriate behavior due to anxiety and worry
- Situational behaviors uncharacteristic of student’s general behavior
- Cheating for survival
- Pseudoconfidence to mask areas of weakness
- Low self-esteem

1.3.8 General Symptoms of Dyslexia

The following symptoms have been adapted from R. Davis, *37 Common Characteristics of Dyslexia.*

- People with dyslexia appear bright, highly intelligent, and articulate but unable to read, write, or spell at grade level.
- High in IQ, yet may not test well academically, tests well orally, but not written.
- Labeled lazy, dumb, careless, immature, “not trying hard enough” or “behavior problem”.
- Isn’t “behind enough” or bad enough to be helped in the school setting
- People with dyslexia may feel dumb, has poor self-esteem; hide or cover up weaknesses with ingenious compensatory strategies; easily frustrated and emotional about school reading or testing.
- Dyslexics learn best through hands on experience, demonstrations, experimentation, observation, and visual aids.
- Dyslexics are talented in art, drama, music, sports, mechanics, storytelling, sales, business, designing, building, or engineering.
- Seems to “Zone out” or daydream often; gets lost easily or loses track of time.
- People with dyslexia have difficulty sustaining attention, seems “hyper” or “daydreamer”
1.3.9 Factors Associated with Dyslexia

When we carefully evaluate the child, the family and the community, we see multiple factors in action. In some segments of the profession, determining causation (and also classification) in Learning Disabled has been viewed from a rather pessimistic standpoint. Lynn, Gluckin and Kripke (1979) noted that “Indeed, the causes of learning disability are unknown. If we knew what caused a learning disability, we would call it by another name.” These authors further stated that no honest classification of learning disability could be based on causes, because the causes are unknown. When there are consistent individual differences in a certain type of behavior, three broad types of causes for these differences are often distinguished. They may be innate, there may be biological factors in the environment, which differentially affect individuals, and there may be influences in the psychological and social environment, which determine these differences.

Though much of the evidence lacks precision, it seems likely that genetic, biological, & social influences all play a role in the causation of reading retardation.

A Genetic Factors

From the earliest reports of children with severe reading retardation strong claims have been made about the genetic basis of the disorder. Hinshelwood (1977) and Orton (1937) also reported a strong tendency for the condition to run in families and interpreted this as a genetic effect. This emphasis has continued to the present day and ‘constitutional origin’ forms part of the definition of specific “Developmental Dyslexia” adopted by the World Federation of Neurology (Critchely, 1970).

These studies generally show that when one twin has a reading disability, the other one is more likely to have a reading disability if he is an identical twin rather than a fraternal.

However, evidence is accumulating all the time that a tendency to dyslexia is largely inherited. Critchley (1964) described studies by others, which indicated that in 30 to 88 percent of cases of developmental dyslexia, other family members had reading problems.
Vernon (1957) stated that there is no specific inheritance of reading disorder, but there is an inherited predisposition in certain cases toward the occurrence of the related difficulties of reading disabilities, speech impairment, motor coordination and attention span.

A genetic factor in at least some cases of reading retardation remains likely if unproven. To a degree, the extent to which genetic factors are responsible for these children’s problems is not of great practical importance. It may be better to concentrate on understanding the nature of the disorder so that we are better able to teach them to read.

B Physiological Factors

Prenatal physical factors (such as maternal infection, drugs taken during pregnancy, labour or delivery and twinning) stress the physiology of the newborn that may result in changes in brain physiology. It is now suspected that dyslexic’s brain cells may be arranged differently from those who have no difficulty with reading or writing and that this usual structure of cells affects to a varying degree the normal functioning of one area or another in the brain. Dyslexia is caused by changes in the brain resulting from illness or accident, normal before, during or just after birth. Many specialists now believe that dyslexic difficulties could arise when someone’s language areas are split more evenly between the two halves of the brain. The source of problem seems to lie in the connection between the two hemispheres.

Lyle (1970) in a questionnaire study of mothers found no relation between reported prenatal factors and reading retardation. It appears that although overt brain damage can cause reading retardation, most children retarded in reading do not show any definite neurological symptoms.

C Psychological Factors

In considering the psychological mechanisms responsible for reading retardation three broad approaches can be discerned. First is the view that visual perceptual or memory deficits are responsible.
A second approach is that there may be a specific deficiency in the integration of visual and auditory information, such as is required in learning to read. A third approach has looked for evidence of auditory perceptual and general language impairment as causes of reading difficulties.

D Environmental Factors

Environmental causes are difficult to document. There is much evidence showing that environmentally disadvantaged children are more prone to exhibit learning problems. Certain factors that have been named as possible environmental causes of dyslexics are as under:-

a) Poor schooling and Poor teaching.

b) Poor health.

a). Poor schooling and Poor teaching- Constant changes of school, particularly if this also involves drastic changes of teaching methods, may well retard child’s ability to acquire the basic skills in reading, writing and arithmetic. The extents to which school teachers and children are compatible are important features in a child’s life, especially in his early years.

Many do believe that if teachers were better prepared to handle the special learning problems of children in the early school years, many learning disabilities could be avoided.

b). Poor Health- The child who is in constant poor health and who never feels really well will have difficulty concentrating on learning at school. Common causes of continuous illness are respiratory tract infections, such as bronchitis or common cold, which lead to stuffy noses, headaches, sore throats and congestion of the middle ear. These in turn lead to accompany problems of intermittent hearing loss or “glue ears” which is due to congestion, and is bound to affect satisfactory school performance.
1.3.10 Causes

A Neurological Causes

Dyslexia is a neurological or brain based condition. Researchers studying the brains of dyslexics have found that during reading tasks dyslexics show reduced activity in the left inferior parietal cortex. It is anecdotally claimed that it is not that uncommon for dyslexics who have trained them to cope with their affliction to develop uncannily efficient visual memories which aid in reading and comprehending large quantities of information much faster than is typical. Some dyslexics may show a natural dislike of reading &, as a consequence, compensate by developing unique verbal communication skills, interpersonal expertise, visual -spatial abilities and leadership skills.

In 1979, anatomical differences in the brain of a young dyslexic were documented. Albert Galaburda of Harvard Medical School noticed that the language center in a dyslexic brain showed microscopic flaws known as ectopias and microgyria. Both affect the normal six—layer structure of the cortex. An ectopia is a collection of neurons that have pushed up from the lower layers of the cortex into the outer most one. A microgyria is an area of cortex that includes only four layers instead of six. These flaws affect connectivity and functionality of the cortex in critical areas related to auditory processing and visual processing which seems consistent with the hypothesis that dyslexia stems from a phonological awareness deficit.

B Genetic Causes

Another study regarding genetic regions on chromosomes 1 and 6 have been found that might be linked to dyslexia. Presenting the argument, dyslexia is a conglomeration of conditions that affect similar & associated areas of the cortex. Developmental dyslexia appears to be present from birth and is the result of developmental differences in the brain. Many studies have shown that often there are other family members who show and have shown similar difficulties, which suggest genetic or developmental causes of dyslexia. Dyslexia occurs in all background and intellectual levels. In addition, dyslexia runs in families, dyslexics parents are very likely to have children who are dyslexic.
Researches have shown that dyslexia is not caused by orthography. Ziegler et. al. claim that the dyslexia suffered by German or Italian dyslexics is of the same kind as the one suffered by the English ones. However, dyslexia has more pronounced effects on more “difficult” languages.

1.3.11 Treatment

Only traditional educational remedial techniques have any record of improving the reading ability of those diagnosed with dyslexia. There is little evidence that coloured lenses, any visual training, or similar proposed treatments are of any use in the treatment of dyslexia. The most common form of treatment for dyslexia in English-speaking countries is through educational tutoring, often using an approach based on Orton-Gillingham, which provides systematic multisensory teaching geared to building phonetic decoding skills.

Even a few weeks of intense phonological training (often involving breaking down and rearranging sounds to produce different words) can help noticeably and improve reading skills in people with dyslexia. The earlier the phonological regimen is taken on, the better the overall result treating dyslexia. Advanced brain scans could identify children at risk of dyslexia before they can even read, although it is thought that simple tests of balance could do the same.

Other popular educationally-based methods include Lindamood-Bell learning processes which provides extensive tutoring geared to developing precursor and ancillary reading skills, such as Lindamood Phoneme Sequencing (LIPS) Program, to help develop phonemic awareness and Phono Graphixs, which is an alternative multisensory approach to teaching phonetic skills, designed to be faster paced and to avoid the repetition and drill associated with traditional tutoring methods.

There are also a number of therapeutic approaches, which focus on providing treatment for underlying cognitive, neurological, auditory, or visual impairments thought to underlie dyslexia. These include the following Davis Dyslexia Correction, which is comprehensive, counseling-based approach combining mental techniques to overcome disorientation associated with dyslexia with the use of clay modeling to learn the alphabet, words and concepts, Fast For Word, a software training program geared to
improve child’s ability to distinguish the sounds of language, The Dore Program (D D A T), a system of balance and coordination exercises designed to increase cerebral function; auditory integration training and neuro feedback.

Dyslexia is a life long condition. With proper help, people with Dyslexia can learn to read and/or write well. Early identification and intervention is the key to help dyslexics achievement in school and in life. Most people with dyslexia need help from a teacher, tutor or a therapist especially trained in using a Multi Sensory Structured linguistic approach. It is important for these individuals to be taught by a method that involves several senses (hearing, seeing, touching). At the same time, many individuals with dyslexia need one on one help so that they can move forward at their own pace. For students with dyslexia it is helpful if there outside academic therapist (special educator) works closely with classroom teachers. Schools can implement academic modifications to help dyslexic students succeed, for example a student with dyslexia can be given extra time to complete a task, or help with taking notes or appropriate work assignments. Teachers can give taped tests or allow dyslexic students to use alternative means of assessments. Students can benefit from listening to books on tape and from writing on computers. Students also need help with emotional issues that sometimes arise as consequence of difficulties in school. Mental health specialists can help students cope with struggle. Proper instructions for students with dyslexia promotes reading success and minimizes many difficulties associated with it.

1.4.0 THE ALPHABETIC PHONIC METHOD

In the alphabetic phonic method the children first learn the sounds of the letters, then how to substitute initial consonants in known words in order to figure out new ones, and finally how to blend separate sounds together in words. First selected sounds are introduced by presenting them in upper and lower cases with pictures. Some children can learn as many as four or five sounds in a single lesson. Each objects name should be pictured to avoid possible confusion. For example “fence” for “gate” or “boat” for “ship”. When teaching several sounds in succession, care is taken to use those which differ markedly in appearance and sound (for example, b and d are easily reversed and hence confusing). The order of letters are chosen according to most suitable child’s needs.
The children are told the name and sound of one letter at a time. Vivid associations are given wherever possible. The children listen to words beginning with one sound and then are asked to distinguish a word that begins with a different letter sound. Then children pronounce the name of letter and its sound. The teacher then pronounces other words that begin with same letter and sound and asked the children to listen carefully to the beginning sound. Then children are asked to volunteer additional words beginnings with same sound. Dyslexic children often have difficulty in thinking of examples.

Children’s auditory discrimination might be further developed by pronouncing groups of four words, three of which begin with same sound. The children are asked to listen carefully and to indicate the one that does not begin with the sound being taught by clapping or raising their hands. The teacher does not go on to a new group of four words until the children have identified the word that begins differently. This is continued until sufficient auditory discrimination has been attained. Other letters are then taught in the same way.

When the children have learned several consonants and one short vowel sound, they are shown how to blend them together into words. Consonant blends are taught in the same way as single consonants. Practice in word families is presented to children in context instead of isolated lists wherever possible. Large number of blends fall into similar patterns such as tr, gr, br but the consonants digraphs which represents a single sound as entirely new sound, such as sh, ch, have to be taught, separately. Th has two sounds: ‘th’ (as in thimble) and ‘th’ as in (these).

Vowel sounds are taught in the same way as consonant sounds. Although there are many different sounds for each vowel. Only the short and long sounds are taught at the outset to children with reading disability. As the child’s mastery of reading increases, diphongs and other vowel combinations are taught.

Once short vowel have been mastered, the sounds of long vowels are introduced. After that the rule of double vowel is taught when two vowel come together in a word, the first one is usually long and the second one is silent as in paid, coat and seat. Different words are presented and children are encouraged to figure out the rule for themselves.
auditory perception is stronger than visual perception and kinesthetic, the remedial teaching based on phonics would be a successful programme for a dyslexic child.

There are two major approaches to teaching children the alphabetic principle: analytic and synthetic phonics.

1.4.1 Analytic Phonics

Analytic phonics is well known in Scotland, where it has formed part of the early years reading programme for many years. Teaching starts at the whole word level, and then involves showing children patterns in the English spelling system. It is generally taught in parallel with, or some time after, graded reading books, which are introduced using a look and say approach. Children are typically taught one letter sound per week and are shown a series of alliterative pictures and words which start with that sound, e.g. car, cat, candle, cake, castle, caterpillar. When the 26 initial letter sounds have been taught in this way, children are introduced to middle sounds, e.g. cat, bag, rag etc., and final sounds, e.g. nap, cup, pip etc. This stage is usually reached at the end of Primary 1. At this point some teachers may show children how to sound and blend the consecutive letters in unfamiliar words to be able to pronounce them, e.g. 'cuh-ah-tuh' for 'cat'. Starting in Primary 2, initial consonant blends are taught, e.g. 'bl', 'cr', 'sp', followed by final consonant blends, e.g. 'nt', 'ng', 'st'; vowel and consonant digraphs, e.g. 'ee', 'oo', 'ch', 'sh'; and silent 'e', e.g. 'sl at e', 'bl ue'. This programme is often completed at the end of Primary 3.

1.4.2. Synthetic Phonics

Synthetic phonics is used in Germany and Austria and is generally taught before children are introduced to books or reading. It involves teaching small groups of letters very rapidly, and children are shown how letter sounds can be co-articulated to pronounce unfamiliar words. In a UK version of synthetic phonics, i.e. Hickey's Multi-Sensory Language Course (Augur and Briggs, 1992), the first block of letter sounds is 's', 'a', 't', 'i', 'p', 'n', which make up more three-letter words than any other six letters. Children are shown many of the words that these letters generate (e.g. 'sat', 'tin', 'pin').
At some places while using synthetic phonics, children are made to use magnetic letters to build up words and to help them understand how letter sounds can be blended together to pronounce the words. In order to read a word, the appropriate magnetic letters are set out; the children then blend the letter sounds together, smoothly co-articulating them, whilst pushing the letters together. The approach is also used for learning to spell (and to reinforce blending for reading). The children listen to a spoken word, select the letters for the sounds, and then push the letters together, sounding and blending them to pronounce the word. Consonant blends are not explicitly taught at all as they can be read by blending, although digraphs (i.e. a phoneme represented by two letters, such as 'sh', 'th', 'ai', 'oa') are taught.

A typical lesson using this scheme would be as follows. The children will have been taught the sounds for the letters 't', 'a', and 'p'. A child at the front of the class is asked to select these letters from the teacher's large magnetic board, and to place them in a row below the other letters of the alphabet. The class then give the sounds of the letters, 't', 'a', 'p', and then blend the sounds together to pronounce the word 'tap', whilst the letters are pushed together. To practise spelling the teacher might hold up a picture of a word. The children pick out the letters for the sounds that they hear in the word, and place them together on their own magnetic boards. They will then sound and blend, pushing the letters together.

1.5.0 MULTISENSORY STRUCTURED LINGUISTIC METHOD

Multisensory Structured Linguistic Method is that method in which multiple senses are used to teach linguistic structures. This method is totally teacher directed and all the activities used for teaching language are presented in a certain order.

1.5.1 Multisensory Approach: The names of Fernald, Gillingham, Stillman and Orton usually come to picture when multisensory approaches are mentioned. Basically all these educators have advocated methods, which use as many channels of input to the learner as possible. Remedial practitioners would try anything that worked multisensory methods, based on the use of all available channels, naturally do their purpose and they use them for remedial teaching. The method usually involved the learner finger tracing over the
letter shape or word shape to be mastered while at the same time saying and hearing the auditory component and seeing the visual components. Multisensory methods involve correction of a child’s problem by using combinations of the child’s sensory system in the training process. The assumption is that the child will be more likely to learn if more than one sense is involved in learning experience. Dyslexic students need a different approach to learning language from that employed in most classrooms. They need to be taught, slowly and thoroughly, the basic elements of their language, the sounds and the letters which represent them and how to put these together and take them apart. They have to have lots of practice in having their writing hands, eyes, ears, and voices working together for the conscious organization and retention of their learning.

As has been shown by research on the etiology of learning disabilities, children with learning disabilities require multisensory learning. This is vital because it stimulates the learning disabled children’s learning processes through all the senses. Since all the pathways to the brain are involved, the stronger areas of the brain are used while the weaker areas are exercised. By using the visual, auditory, oral and kinesthetic pathways simultaneously, memory can be strengthened.

In multisensory approaches it is not primarily a matter of developing the senses further but of using all the senses to support the visual and auditory modalities. In better-known multisensory approaches, the assumption is that they are used along with the auditory to support or strengthen the visual channel such as, feeling the shape of the letters. It is important to understand the principle of utilising sensory modalities to assist in the development of normal perception of other modalities.

1.5.2 Structured Approach: Basically, a structured programme is one that is almost totally teacher directed- that is the teacher determines most activities. The programme is introduced in a certain order. The child learns to acquire an accurate image for recall by using all his sensory pathways simultaneously by looking at its shape, listening to its sounds, saying its name and writing it. When the first phonogram is secured and the child could recognize it for reading and recall it for spelling, then proceeds to the next one, which is learnt in the same multisensory way and linked it to the first syllable. In this way child learns all; syllables and he progresses towards sentences. As child work through the
structure and as the appropriate phonograms are learned, spelling rules and probably way of spelling sounds are incorporated. A careful record of progress through the structure is maintained. Nothing is taken for granted, and recall is based only on what has been included in the individual programme. There is no confusion, only certainly and steadily increasing confidence in the pupil's own ability to learn is incorporated.

1.5.3 Linguistic Approach: Linguistic is the study of the language and only recently have linguistic turned their attention to the area of reading and reading improvement. In actuality, there is no “Linguistic approach” since all reading relates to language. Therefore all reading approaches are linguistic approaches in that sense. Linguistic approaches control the introduction of word structures, beginning with simple sentences in which certain patterns are employed, such as: the man ran to the tan van. Such pattern are intended to teach students that the words are alike except for the initial letter or phoneme and that, therefore, the words can be identified by distinguishing between these various phonemes. In general, irregular words are taught as sight words, and students are asked to discriminate only between regular words forms. The progression of pattern is carefully mapped and students encounter increasingly difficult patterns as they advance. Repetition allows students to master the various patterns.

1.6.0 BEHAVIOR MODIFICATION METHOD

Behaviour Modification Method is that method in which appropriate behaviour is strengthened by giving positive reinforcements and different techniques are designed to eliminate undesirable behaviours.

Bandura (1969) indicated that Behaviour Modification is an encompassing term and includes such areas as vicarious learning, self-control and other cognitive procedures. For years, behaviors modification has been used successfully to work with inattention and hyperactivity as well as with specific academic behaviors (Hallahan & Kauffman, 1975).

Kauffman (1975) defined Behaviour Modification as a “systematic control of environmental events to produce specific changes in observable behaviours.” Environmental events preceding behaviour in question (i.e. instructions, cues, models,
prompt etc) as well as events following the behaviour (i.e., positive reinforcers or aversive stimuli) may be arranged to modify an individual's performance. Furthermore, procedures which strengthen appropriate behaviour are equally as important as techniques designed to eliminate undesirable behaviours.

Lovitt has used Behaviour Modification to improve arithmetic performance (Lovitt & Curtiss, 1968) and linguistic skills (Lovitt and Smith, 1972).

Frank Hewett’s Santa Monica Project is an important example of Behaviour Modification applied to children with attentional problems (Hewett, 1967, 68). Hewett devised the “engineered classroom” in which teacher reinforces children with tokens or check marks that can be turned for prizes. The programme is based on building a developmental hierarchy of skills in the child, beginning with attending abilities. The child with attention problem is given a number of highly structured activities that require attending skills. Once the child becomes relatively successful at attending to the task at hand; he or she is moved up to the next level in the hierarchy. Hewett’s programme has been found to be successful in increasing task attention.

Hall et al. (1968) demonstrated that child’s “on task” behaviour could be increased dramatically if the teacher simply ignored non attending responses and responded only to on-task behaviour. Then child will learn more efficiently.

Collete-Harris and Minke (1975) support the Stott’s ‘Learned behaviour’ explanation for specific learning difficulties. Both dyslexic and non dyslexic subjects receiving the behaviour intervention improved in reading achievement and the dyslexic subjects improved in several perceptual and attention measures as well.

Stott (1978) in his diagnostic remedial strategy affirmed the importance of strengthening students motivation and boosting up child’s self-esteem. The aim should be to correct faulty teaching habits and induce the child to bring his capabilities into play. Rather than seeing the child as having certain deficits, Stott sees learned behaviour as the root of the problem. An optimistic view of the teacher, coupled with systematic teaching, promises success. The learner should be rewarded by success – a feeling of effectiveness should come to the disabled learner.
The main reinforcement should arise from the exercise of competence within the activity itself. Remedial activities should be so loaded with effectiveness, enhancing opportunities that the child should find them as enjoyable as spontaneous play.

1.7.0 ECLECTIC APPROACH (COMBINED APPROACH)

Eclectic means not following any one system, but selecting and using what are considered the best elements of all systems. Remedial students are taught by whatever means seem most suitable to their individual needs.

An Eclectic approach need not be composed of all possible approaches, methods, techniques and variations. A teacher may choose two or three approaches that provide broad-range remedial instruction—instruction that can afford a basis for teaching almost any aspect of reading such as sight words recognition, word analysis skills, use of contact clues, comprehension, fluency and so on. With these broad-range approaches as a base, the teacher may add two or three variations that are essentially supplementary methods to be used compatibility with one or more of the broad range approaches than if an approach seem to fail with a student, the teacher can delete that portion and use a compatible supplementary method to teach the skills needed.

In Eclectic approach, teachers select and use what in their judgment is best in a given situation rather than follow a prescribed course of action. Frieder (1970) gets it all together when he says: “Many alternatives are currently available to the prescribed area of media and strategies; but despite the advances in diagnosis and instruction, research has provided little concrete information about the prescribed task – putting diagnosis and instruction together to reach objectives”.

Bracht (1970) and other contemporary educational psychologists suggested that no single instructional process provide optimal learning for all students. Given a common set of objectives, some students would be more successful with one instructional programme and other students would be more successful with an alternative instructional programme. Consequently a greater proportion of students would attain the instructional objectives when instruction is differentiated for different types of students.

An Eclectic Approach is not a hit or miss, trial and error fumbling, but careful selection of treatment that appears to be most appropriate for a given student at a given
point in time. It is a psychological individuality, which is of the greatest importance to education. Each student in a classroom, no matter how carefully selected, as a member of ‘homogenous’ group, would react in his own unique way to the situation. There are differences in talents and aptitudes, in interests and motives, in habits and response styles, in emotional needs and vulnerabilities. So no single approach or focus is likely to be adequate to deal with the vast range of individual differences in any school situation.

The selection of treatment for pupils is what Harris (1970) is talking about in the introduction to his casebook on reading disability.

A combination of teaching methods was used with most of these children, teaching visual recognition of common words while also teaching phonics and devoting part of the lesson to oral and silent reading. The Gillingham method of phonics instruction was sometimes combined with kinaesthetic procedures. The Femald Kinaesthetic or VAKT method was employed in several of the cases, usually with some modification or with some other instructional method.

Most professionals would heartily agree with this opinion that no single approach or focus is likely to be adequate to deal with the vast range of individual differences in any school situation.

1.8.0 RON DAVIS APPROACH

There is the Davis Dyslexia Correction Programme of Ron Davis (1997, 2003) that originated in 1984 in California and at present is being applied worldwide by facilitators in six different languages. What separates this approach from others is the fact that students are guided verbally and visually to obtain an orientation point. According to Davis (1997, 2003) people with reading problems read differently in the sense that they see things around them from different orientation points an attribute that stands them in good stead in the world of concrete images but lets them down when they have to interpret images that are one or two dimensional such as writing. Then they “disorientate”. He worked out how this disorientation could be stabilized when it for example comes to reading, and this forms the basis of his technique that he calls Orientation Counseling. As soon as a student has learned to stabilize his/her disorientation, multisensory techniques are used to further correct the reading problem.
According to anecdotal reports and others data obtained from the website, http://www.dyslexia.com, the Davis programme has a success rate of more than 90% and empowers people of all age groups to control their reading problems.

This Approach is based upon the procedures given by Ron Davis in his book ‘The Gift of Dyslexia’. These procedures are all the basic methods that have successfully helped dyslexic adults and children since the opening of the Reading Research Council’s Dyslexia Correction Center in 1982. The detail of these procedures as given in ‘The Gift of Dyslexia’ is as under:

1.8.1 Participation and involvement of the students

Talk to the learners in the experimental group not only to make them feel at ease, but also to motivate them and to explain to them that they have to assume responsibility for their participation and involvement in the intervention programme. They must be willing to participate. The researcher is a facilitator and the learners have to co-operate, otherwise no change will be possible.

1.8.2 Davis Perceptual Ability Assessment

a. Greeting and Introduction

Greet the person and introduce yourself. As appropriate, explain the nature of the assessment.

b. Concept Clarification

<table>
<thead>
<tr>
<th>What to say</th>
<th>What to do</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are you right handed or left handed?</td>
<td>Make a note of the answer for future reference.</td>
</tr>
<tr>
<td>What I am interested in is your imagination. Mainly that part of your mind</td>
<td>If ‘yes’ continue. If ‘no’, explain further by asking him to imagine</td>
</tr>
<tr>
<td>where you can close your eyes and make a picture of something and see the</td>
<td>something he likes with his eyes closed. If the person can’t form a mental</td>
</tr>
<tr>
<td>picture. Does that make sense to you?</td>
<td>(imaginary) image, stop.</td>
</tr>
</tbody>
</table>

Draw two circles on a blank piece of paper.
| This circle represent you. | Point to one of the circles. |
| This represents me. | Point to the other circle. |
| If your are looking at me, you are looking from here. | Tap your pencil on the first circle. |
| And you are looking to or at me over here. | Draw an arrow from the first 'you' circle to second 'me' circle. |
| As long as we are looking with our eyes, we know exactly where we are looking from. | Point at your own eyes. |
| But what about when we are looking at a picture with our minds. | Pause for a second. |
| We are doing the same thing. | Point at the ‘me’ circle as you say ‘at’. Point at the ‘you’ circle as you say ‘from’ |
| We are looking at something- from some place. | |
| I want to call the place we look from the MIND’S EYE because it is what sees when we are imagining. It is what is doing the looking. | Make sure he gets the idea. |
| Do you like cake? | NOTE: Most people like cake, so in this example, we’ll assume they do. If ‘no’, try pizza, chocolate, apple or any distinctly shaped object that the person can imagine easily. |
| What kind of cake is the best kind? | Note what kind of cake he likes for future reference. |
### Assessments

<table>
<thead>
<tr>
<th><strong>c. Assessment</strong></th>
<th>Have the person sit directly in front of you, close enough for you to be able to reach over and touch his forehead without getting out of your chair, but not so close as to make him feel uncomfortable.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is it all right if I touch your hands in what we are going to do?</td>
<td>Get his consent.</td>
</tr>
<tr>
<td>We are going to use both of your hands, so I need you to keep them available for me.</td>
<td>Take the person’s opposite-to-handedness hand (if right-handed take his left hand: if left handed take his right). Position the hand, palm up, about where he would hold a book when reading.</td>
</tr>
<tr>
<td>Let’s imagine a piece of cake is sitting right here in your hand. Tell me when you’ve got it.</td>
<td>‘Imagine a piece of chocolate cake in your hand.’ (Tap the palm.)</td>
</tr>
<tr>
<td>‘Close your eyes’.</td>
<td>Describe the cake just as he described it, using his exact words: ‘A big slice of Black Forest’ or ‘sponge cake with green icing’.</td>
</tr>
<tr>
<td>I want you to keep your eyes closed until I tell you to open them, OK?</td>
<td>Make the request when he says he has mental picture (if his eyes aren’t already closed).</td>
</tr>
</tbody>
</table>
NOTE: If the person cannot visualize an object or has difficulty maintaining the image, you can either stop or attempt to coach the person into creating a mental image. Difficulty in visualizing indicates that Orientation Counselling will not be easy for the person.

By asking simple questions determine how the imaginary object is positioned in the hand. Continue until you also have a clear mental image of it sitting in the person’s hand.

If you cannot make a visual copy of the imaginary object, at least get a sense of its size, shape and position.

Take the index finger of the other hand between your thumb and middle finger. Raise the finger to a point a few centimeters from the forehead, on a level just slightly above eye level.

Tap the tip of his index finger with your index finger as you say ‘here’.

I want you to shift your imagination and put your mind’s eye here, where your finger is, and look at the piece of cake from here.

Tap the finger again. Wait several seconds......

It’s as if you have risen a little to get another view of the cake from here.

Can you see the cake from here?

NOTE: If the person cannot make this first shift easily, do not continue. Go to step 4, ending the assessment. Explain that the assessment is over and that Orientation
| ‘Look at piece of cake from here’. (Tap the finger) | Counselling is not indicated. |
| I want you to keep your mind’s eye in your finger. Now I’m going to move your finger. I want your mind’s eye to move with it, OK? | NOTE: Do not move the finger while giving instructions or talking to the subject. Make your statement before starting to move the finger and stop moving the finger before you begin talking again. |
| | Move the finger slowly and smoothly to a position part way round the open hand. Keep the finger about the same distance from the open hand as the person’s eyes are. |
| Can you see the cake from here? | Tap the finger. |
| ‘Can you see the piece of cake from here’? | When ‘yes’, ask questions that require a verbal response. Pay attention to response time, variations in speech patterns and any manifestations of confusion or disorientation. Once you are satisfied that the person has actually shifted the mind’s eyes to the new position, you can go to step 4 and end the assessment at any time. |
| I am going to move your finger again. I want your mind’s eye to move with your finger, OK? | If you are not sure whether the person has actually moved the mind’s eye, go to the next step. |
| | Move the finger slowly and smoothly a little farther round the open hand. Don’t move the finger more than a quarter of the distance round, above or below the open |
Can you see the piece of cake from here? Tap the finger again. When ‘yes’, again ask questions, looking for indications that the person actually has moved the mind’s eye. He should see a mental (imaginary) picture from the perspective of his fingertip, as if he were looking at the object from that position. Repeat this process of moving the mind’s eye and questioning until you are satisfied the mind’s eye has actually been moved.

<table>
<thead>
<tr>
<th><strong>d. Ending the Assessment</strong></th>
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</tr>
</thead>
<tbody>
<tr>
<td>I want you to put your mind’s eye back in the place where it was when we first started. I want you to get your original view of that piece of cake.</td>
<td>Slowly and smoothly move the finger towards the eye on the handedness side of the person’s body. When within a few centimetres of the eye, stop the finger.</td>
</tr>
<tr>
<td>Take your mind’s eye out of your finger and get your original view of the cake-from your eyes</td>
<td>Wait several seconds.</td>
</tr>
<tr>
<td>Do you have your original view?</td>
<td>When ‘yes’, move the finger in the direction of the lap and release the finger.</td>
</tr>
<tr>
<td>Make the piece of cake go away, and tell me when it is gone</td>
<td>NOTE: If he has any difficulty making the object disappear, have him do a ‘reverse blink’ by rapidly opening and shutting his eyes.</td>
</tr>
<tr>
<td>When it is gone, touch the palm of the open hand</td>
<td></td>
</tr>
<tr>
<td>Put another piece of cake here in your hand and tell me when your have it.</td>
<td>NOTE: The reason for forming a second image and make it disappear is to ensure the mind’s eyes has returned to its original location so that the person will not remain hand during any one move.</td>
</tr>
</tbody>
</table>
Make this piece of cake go away and when it is gone, open your eyes.

When his eye open, move the open hand towards the lap and release it.

1.8.3 Davis Orientation Counselling (Initial Session Procedure)

a) Greeting and Introduction

Greet the students of experimental group and establish rapport with them. As appropriate, explain the goal and objective of the procedure.

b) Concept Clarification

Explain that disorientation is a condition in which the brain is not receiving what the eyes see or what the ears hear; the balance and movement sense is altered, and the time sense is either speeded up or slowed down.

<table>
<thead>
<tr>
<th>What to say</th>
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<tbody>
<tr>
<td>Before we start the session, I am going to go over every thing we are going to do. I will show you on paper first, then we’ll do it step-by-step. OK?</td>
<td>Get a piece of paper and have the person sit so that the paper can be clearly seen. ‘I’II draw for you exactly what we’re going to do so you’ll know what to expect’.</td>
</tr>
<tr>
<td>There are two reasons why we are going over this first. One is to let you know what will be happening so that there won’t be any surprises. The other is to make sure you understand what I will be asking you to do.</td>
<td>Write on the paper the person’s name, your name, the date, the name of the process, the object to be used in visualization, and the handedness of the person.</td>
</tr>
<tr>
<td>I do ask you not to do any of the process while I’m showing you on the paper. That</td>
<td></td>
</tr>
</tbody>
</table>

disorientated.
would only create confusion. Just watch and listen. If you have a question, ask. After we finish going over it on the paper, I will walk you through it step-by-step. OK?

<table>
<thead>
<tr>
<th>Draw two circles on the paper. Make one circle a ‘top view’ of a head. Make the other circle a ‘side view’ of a head.</th>
</tr>
</thead>
<tbody>
<tr>
<td>These are two views of the same head, looking down at it from the top and from the side.</td>
</tr>
<tr>
<td>As in the assessment, we’ll have you imagine a piece of ______ in your hand.</td>
</tr>
<tr>
<td>Draw the object (the piece of cake used in the assessment) to be visualized in front of both views. On the side view the object should be below eye level at about a 45° angle from the line of sight.</td>
</tr>
<tr>
<td>Then we will have you shift your imagination and put your mind’s eye in your finger, off to the side, and have you look at the piece of cake from here.</td>
</tr>
<tr>
<td>Put an X on the person’s ‘handedness’ side of the top view to indicate the position of the mind’s eye (to the right if the person is right-handed).</td>
</tr>
<tr>
<td>Draw a straight line from the object through the top view. Extend the line well past the back of the head. On the side view, draw a straight line from the object, through the end of the nose, through the head, and extend the line well past the top</td>
</tr>
</tbody>
</table>
Once your mind’s eye is in your finger, we will have you imagine a line that goes from the piece of cake straight through your head. The line will go from the piece of cake into your nose, through your head, and will stick up about 30 centimetres or so above and behind your head.

After you have drawn that line in, we will have you move your mind’s eye round so it’s a few centimetres above and behind your head and we’ll have you position it on the line. OK?

Do you know how an anchor for a boat works?

You have a heavy weight, and you attach a line or chain to it. You attach the line to the boat and throw the anchor into the water. The anchor sinks into the mud or hooks on a rock or something and when the line is pulled tight it keeps the boat from moving. Right?

Be sure the concept of ‘anchor line’ is understood.

We are going to use the same idea as an anchor. When your mind’s eye is in the right place on the line above and behind your head, we are going to have you put an X on each of the lines going through the heads.

Draw the three anchor lines on the paper as you explain it.
anchor line down to the top of each of your ears, and anchor it in. Then we’ll have you put a third anchor line down to the top of your head and anchor it in there. Then we’ll have you pull the three anchor lines tight and attach them together right where your mind’s eye is.

Any questions so far?

Once the three anchor lines are drawn in, we won’t need the line that goes down to the piece of cake any more, so you’ll rub it out and it will be gone. We won’t need the piece of cake any more either so we’ll have you rub that out also.

To simulate rubbing out, draw a wavy line over one of the long lines and the object at its end.

What you will have left are the three anchor lines that come together and make a point above and behind your head.

Draw three lines coming together, separately on another part of the paper. Draw a circle around the intersecting point.

We are going to call the place where the lines come together an ORIENTATION POINT. It is the PLACE where the lines end. We call the lines anchor lines, not to anchor the mind’s eye there, which you can’t do anyway, but to anchor this place there so it is in the same place all the time.
Any questions so far?

<table>
<thead>
<tr>
<th>What we are really after is a group of brain cells down in the middle of the brain that are responsible for disorientation. When those brain cells are turned off, our brain gets exactly what our eyes see, as our eyes are seeing it; and our brain gets exactly what our ears hear, as our ears are hearing it. Our balance and movement sense is accurate, and our sense of time is accurate. When those brain cells are turned on, our brain doesn’t get what our eyes see; it gets what we think our eyes are seeing. Our brain doesn’t get what our ears hear; it gets what we think our ears are hearing. Our balance and movement sense changes and our internal sense of time can either speed up or slow down. What we really need is the OFF-SWITCH for those brain cells. That’s what that orientation point is. It’s the off-switch for the disorientation.</th>
</tr>
</thead>
<tbody>
<tr>
<td>The way we switch the off-switch off is simply by putting the mind’s eye on that orientation point. That turns those brain cells off.</td>
</tr>
<tr>
<td>Draw an X inside the circle where the three separate lines come together.</td>
</tr>
<tr>
<td>If our mind’s eye is sitting in this spot, the brain cells are turned off. But if something</td>
</tr>
<tr>
<td>Draw three additional lines coming together, and put an X on the point.</td>
</tr>
</tbody>
</table>
happens that can cause a disorientation, the mind’s eye doesn’t stay there, it moves.

<table>
<thead>
<tr>
<th>Any questions so far?</th>
<th>Draw three more lines that come together; they should be longer and bolder than the others.</th>
</tr>
</thead>
</table>

So it takes off, and we are disorientated. In the past, if we waited long enough, or if we went for a walk, or did something other than what we were doing that caused the disorientation, eventually our mind’s eye would come back, and we would be all right again — until something else caused another disorientation.

When we have an orientation point, we can deliberately bring the mind’s eye back, put it on the point, and end the disorientation. We don’t have to wait, or do something else, or torture ourselves. Simply putting the mind’s eye back in that place turns off the disorientation. It also turns off the feeling of confusion and stops the mistakes.

Draw an arrow from the point going off to the side.

Draw a line back to the point and retrace the X.
Of course, we can't see a mind's eye. In fact, it can't even see itself in a mirror. It is invisible. So we'll just imagine for a moment that this thing is a mind's eye. OK?

| Of course, we can't see a mind's eye. In fact, it can't even see itself in a mirror. It is invisible. So we'll just imagine for a moment that this thing is a mind's eye. OK? | Pick up some small object (a coin is fine), and hold the object so that the person can see it. |
| When we get to the part of the session where you have put the three anchor lines in, your mind's eye will be sitting exactly where they come together. | Position the object on the drawing, exactly where the three lines come together. |
| For the first time in your life, you will have deliberately turned off the brain cells that cause disorientation. The only problem is that we don't learn very much from doing something just once. | |
| So when we have your mind's eye sitting on that point, we are going to find some real-life thing that can cause your mind's eye to jump off the point, and disorientate you. | Knock the object off the point where the lines come together. |
| When that happens, I'll stop you from looking at the thing that made it jump, and have you simply put your mind's eye back on the point. | Put the object back on the point where the lines come together. |
| That will turn off the disorientation. The confusion will go away. Then I'll show you what made it happen. Then we'll find another thing that will make it jump. | Knock the object off the point, and put it back again. |
| You'll put your mind's eye back, I'll show | |
you what made it jump, and then we'll do it again. We'll do it again and again, until you are an expert at putting your mind’s eye back on your orientation point. You will be able to do it quickly, easily, and know that you did it.

What you will have then is the ability to turn off a disorientation. It won’t matter what turned it on, the action of simply putting your mind’s eye on your orientation point will turn it off. Any questions?

There is one more point we need to make.

We call this a line, because it has length to it. Just like this pen/pencil has length to it. But what about when we are looking down the length of it?

Point to one of the anchor lines on the drawing
Pick up your pen or pencil
Point the end of the pen/pencil towards the eyes of the person.

It doesn’t look long at all does it? It looks like a dot, doesn’t it?

Point to a place on the drawing where the three lines come together as you say ‘here’.

If the mind’s eye were sitting right here, it wouldn’t see the three lines as lines at all, would it?

Draw one dot, and also three dots touching each other.

It would see them as three dots, or as one dot if they were pushed together. Do you agree?

Do you have any questions about what we are going to do?

If you don’t have any (more) questions, let’s dot it!
Diagram for explaining a Davis Orientation Counselling Session
<table>
<thead>
<tr>
<th>c. Process Sequence</th>
<th>Have the person sit directly in front of you, close enough for you to be able to reach over and touch her forehead without getting out of your chair. Do not sit so close to the person that you make her feel uncomfortable.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is it all right if I touch your hands in what we’re going to do?</td>
<td>Point the end of the pen/pencil</td>
</tr>
<tr>
<td>We are going to use both of your hands, so I need you to keep them available for me.</td>
<td>Get consent.</td>
</tr>
<tr>
<td>Let’s imagine a piece of cake is sitting right here in your hand. Tell me when you’ve got it.</td>
<td>Take the person’s opposite-to-handedness hand (if right-handed take her left hand; if left-handed take her right). Position the hand, palm up, approximately where a book would be held for reading.</td>
</tr>
<tr>
<td>Close your eyes. I want you to keep your eyes closed until I tell you to open them, OK?</td>
<td>Describe the cake exactly as it was described to you in the assessment.</td>
</tr>
<tr>
<td>I want you to shift your imagination and put your mind’s eye here .... where your finger is, and look at the piece of cake from here.</td>
<td>When you are certain the person has formed a mental image and her eyes are closed, take the index finger of the other (handedness) hand between your thumb and middle finger. Raise the finger to a point off to the side of the forehead on eye level (where you placed the X beside the head on the initial drawing).</td>
</tr>
<tr>
<td>It’s the same as if you have leant over and</td>
<td>Tap the index finger with your index finger as you say ‘here’.</td>
</tr>
<tr>
<td></td>
<td>Tap the finger again. Wait several seconds.</td>
</tr>
<tr>
<td>Scenario</td>
<td>Instructions</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Can you see the piece of cake from here?</td>
<td>Tap the finger. When ‘yes’, go to the next step.</td>
</tr>
<tr>
<td>Imagine a straight line that goes from the piece of cake into your nose, through your head, and sticks up about 30 centimetres behind you.</td>
<td></td>
</tr>
<tr>
<td>Draw that line in, and tell me when you have it there.</td>
<td>Confirm that the line is there.</td>
</tr>
<tr>
<td>I am going to move your finger. I want your mind’s eye to move with it, OK?</td>
<td>NOTE: Do not move the finger while giving instructions or talking to the person. Finish making your statement before starting to move the finger and stop moving the finger before you begin talking again.</td>
</tr>
<tr>
<td>I want to put your mind’s eye on the line above and behind your head, so let me move your finger. Let your mind’s eye move with it.</td>
<td>You will need to stand up to reach above and behind the person’s head. Do so quietly and gently.</td>
</tr>
<tr>
<td>Stop the finger 15 to 25 centimetres above and behind the head.</td>
<td>Move the finger slowly and smoothly in a direction towards the midline of the body above and behind the head. Stop the finger about 15 to 25 centimetres above and behind the head.</td>
</tr>
<tr>
<td></td>
<td>If the person’s elbow is sticking out to the side of her body, you may need to turn her</td>
</tr>
<tr>
<td>I can’t see the line. Only you can see it, so I need you to make the fine adjustment to get the mind’s eye right on it.</td>
<td>I’ll need you to make the final adjustment to get your mind’s eye right on the line.’</td>
</tr>
<tr>
<td>———</td>
<td>———</td>
</tr>
<tr>
<td>Loosen your grip on the index finger, and allow the person to move the finger freely. It may take the person several seconds to find the exact spot. When the person stops moving the finger, grasp it again.</td>
<td>(It seems to be a bit off to the side. Is it all right if I move it just a bit?) (If it is not on midline, without changing the distance from the head, move the finger to midline.)</td>
</tr>
<tr>
<td>Look to see that the finger is on what would be the midline of the body (it seldom is).</td>
<td>Pull the line to come to here and tell me when you’ve got it.</td>
</tr>
</tbody>
</table>
‘Pull the line to here.’ (Move the finger to the midline and tap it).

<table>
<thead>
<tr>
<th>Can you see your ears from here? You can see right through your hair.</th>
<th>Tap the finger</th>
</tr>
</thead>
<tbody>
<tr>
<td>When ‘yes’, go to the next step</td>
<td>(If ‘no’, have the person ‘feel’ where the ears would be. If necessary have her feel her ears with her hand (use the hand holding the imaginary object). If feeling them does not bring about seeing them, have the person imagine where her ears would be and make a mental picture of them.)</td>
</tr>
<tr>
<td>Put anchor lines down to the top of each ear, anchor them in, and pull them tight to here.</td>
<td>Tap the finger.</td>
</tr>
<tr>
<td>Put another anchor line down to the top of your head, anchor it in and pull it tight to here as well.</td>
<td>Tap the finger.</td>
</tr>
<tr>
<td>Attach the three lines together.</td>
<td>Confirm that this is done.</td>
</tr>
<tr>
<td>I want to move your finger, but I don’t want your mind’s eye to come with it this time. OK?</td>
<td>Get agreement.</td>
</tr>
<tr>
<td>As I move your finger, leave your mind’s eye at the end of the lines.</td>
<td>Move the finger to the side a few centimetres.</td>
</tr>
<tr>
<td>---------------------------------------------------------------</td>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td>Did your mind’s eye stay on the lines?</td>
<td>If ‘yes’, move the finger over the shoulder in the direction of the lap. Release the finger and sit back down.</td>
</tr>
<tr>
<td>(Take your mind’s eye out of your finger and leave it on the lines when I move your finger).</td>
<td>(If ‘no’, take the finger back to the position on the lines.)</td>
</tr>
<tr>
<td>We don’t need the lines that goes down to the piece of cake any more, so rub it out and tell me when it is gone. We also don’t need the piece of cake any more, so rub it out and tell me when it is gone</td>
<td></td>
</tr>
<tr>
<td>What colour are the three anchor lines you just put in?</td>
<td>Make a note for your reference.</td>
</tr>
<tr>
<td>Move your mind’s eye to the place where the three (colour) lines come together. Tell me when it is there.</td>
<td></td>
</tr>
<tr>
<td>Do you see three dots, or one?</td>
<td>Make a note.</td>
</tr>
<tr>
<td>Are they the same colour as the lines?</td>
<td>Make a note</td>
</tr>
<tr>
<td>What you mind’s eye sees at this moment is what it should see when it is on the orientation point. Whenever you want to, you can look with your mind’s eye. If it sees what it sees now, you know it is on the orientation point.</td>
<td></td>
</tr>
<tr>
<td>If it doesn’t see what it sees right now, you would know that it isn’t on the orientation point and you would have to move it to the</td>
<td></td>
</tr>
</tbody>
</table>
point to see what it sees now. Any questions?
Open you eyes. Did it move when you opened your eyes?
(Put it back) (If ‘yes’, tell her to put it back.)
(Close your eyes and look.) (If ‘I don’t know’, have her close her eyes and check.)

The anchor lines put in by the dyslexic Davis Orientation Counselling will converge at a point 15 to 25 centimetres above and behind the head. It will be approximately a 45° angle, precisely on the midline of the body.
d. **Explanation**

I can’t see your mind’s eyes. I can’t see your anchor lines. If I hadn’t been here while you were doing this, I wouldn’t even know that you have them. If I can’t tell, nobody else can tell either, so only you know for sure. You don’t have to be concerned that anybody will think you are weird or that you are doing something that they can’t do.

You can’t touch a mind’s eye; nothing can.

You don’t have to worry about anything hitting it; or knocking it into a wall, a door or anything else. You don’t have to worry about catching it in the car door. It goes right through things, as if they weren’t even there.

When your mind’s eye is sitting on the point, it is located by the lines that go to your ears and the top of your head. You can’t move fast enough to lose it. You can’t turn your head fast enough to knock it off. It just sits there and goes where your head and ears go.

Any questions?

Do you know what the word ‘responsibility’ means?

Let me give you a (simple/simpler) definition. Responsibility is the ability and the willingness to control something. Control in its simplest

| Wave your hand above and behind your head. |
| ‘You don’t have to worry about knocking your mind’s eye off or anyone seeing your lines’.

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form is the ability to cause something to change, or to cause it not to change.

Because I can reach over and move your hand, I am changing something about your body. That change is happening, and you’re not doing it. I am responsible for that change. You aren’t, because you didn’t do it. Right?

But I can’t reach over and move your mind’s eye. No one can. There isn’t a person, animal, machine or anything on this earth that can move your mind’s eye one billionth of a millimetre. But you can put it anywhere you want to. That means that you have total control, which also means that you have total responsibility for where your mind’s eye is and what it does.

Do you agree?

That also means that when it jumps, when you get disorientated, you are the one who made it jump. When you were very young, you set it up so that whenever you were confused enough, your mind’s eye would automatically go off and try to get rid of the confusion. When the confusion was about a real object it actually worked. It would get rid of the confusion. But it won’t work with a symbol, and all words are symbols, so it won’t work with words. Moving the mind’s eye around just creates more confusion.

Now you have a problem. Your mind’s eye jumps every time you get confused, and you don’t want it to do that any more.

Take one of the person’s hands and move it a bit.
The problem is, it is still going to jump. If you try to hold it on the point to keep it from jumping, while at the same time you are automatically trying to make it jump, you are going to get a headache.

The only solution I know is to go ahead and let it jump. When it does, simply bring it back. That will be your job, your responsibility. Whenever it jumps, you put it back.

Do you have any questions?

Is your mind’s eye still sitting on your orientation point?

(Put it back on the point.) (If ‘no’, have her put it back.)

For a little while, after we first get an orientation point, our mind’s eye just floats around it. It doesn’t just sit there. This happens to everyone. We call it ‘drifting’

As soon as you get used to controlling your mind’s eye, putting it and leaving it on the orientation point, the drifting will stop. Then when you put your mind’s eye there it will just sit there.

Don’t try to hold your mind’s eye there, just let it drift. Every once in a while, move it back to the point and let go of it. If you try to hold it there you are just prolonging the drifting phase.

Any questions?
**e. Practicing using orientation**

Based on the disorientation history, select an activity such as reading which will disorientate the person. Be alert for indications of disorientation. When a disorientation or mistake occurs, stop the activity.

Did your mind’s eye move?  
If ‘no’, continue the activity until it does.

(If ‘I don’t know’, have her check.)

(Look with your mind’s eye and see it sees the (dot/dots).)  
When it has moved, have her put it back.

Put it back.  
Then point out the stimulus that triggered the disorientation.

Point out each word that triggers a disorientation.

Continue in this fashion until the person can quickly and easily put the mind’s eye back on the orientation point, and sees that it makes a difference.

When the person can quickly and easily put the mind’s eye on the orientation point, and knows that she has done so, the session is complete.
1.8.4 Release and Review Procedure

(a) Release Procedure

Have the student go through the Release procedure by reading or reciting these steps to him. As you go, make sure he performs the action requested before doing the next step. If he says he ‘can’t’, or is not certain whether he has done a step, say, ‘Imagine what it would be like to do that.’

Make a loose fist – not too tight. Just let your fingers curl into your palm. Now think the thought ‘open hand’, but, instead of opening your hand, make the fist tighter.

Think the thought again, ‘open hand’, and make the fist even tighter.

Again think the thought ‘open hand’, and make the fist really tight, really really tight, tight all the way up to your elbow.

Now without thought simply let your hand release. Let your entire hand go. Let your fingers find their natural place.

Feel the feeling that goes down your arm, through your hand all the way out to the tips of your fingers. That feeling is the feeling of release. When the word release is used, that feeling is what is meant.

The feeling of release is also the same feeling as the feeling of a sigh.

Do a sigh. Breathe in and hold it for a second or two. Then let the air rush out of your mouth, with a ‘hunnn’ sound coming from your nose and throat.

A little sigh puts the feeling of release in your upper chest. A great big sigh can put that feeling all the way out to the tips of your fingers and toes.

Do a great big sigh. Get that feeling all through your body. Now let that feeling linger. Let that feeling remain in your body.

Now let your mind’s eye have that feeling, by simply wanting it to. Your mind’s eye can have that feeling. That’s what your mind’s eye should feel like.

Now have your mind’s eye put that feeling down into your head and neck. You’ll feel your neck muscles letting go. You’ll feel them get loose.

If the student has a headache, use this step before continuing:

Now have your mind’s eye put that feeling right inside the headache. Have your mind’s eye fill up
the headache with the feeling of release. Have your mind’s eye continue filling up the headache with release until it is completely gone.

In the future, whenever you have to put your mind’s eye back on the orientation point, after you’ve got it there let it go. Loose hold of it. It won’t go anywhere, it’ll just sit there. You don’t have to hold it.

Every time you have to bring you mind’s eye back, let it have that feeling of release. Then you won’t have the headaches or the old solutions happening any more.

After the student has learned what release is and how to do it, there is no need to go through the whole procedure again. Simply ask or remind the student to ‘do release’ whenever you notice him holding, concentrating, tensing up, or exerting a lot of effort.

(b) Orientation Review Procedure

After a few hours, the orientation point established in the initial Orientation Counselling session may change location. As a result, from time to time you may need to check and see if it has moved, and if so, put it back to its original place. This is done with the Orientation Review procedure.

Simply ask the student to put his finger where his orientation point is. Typically when I do it, I say: ‘Earlier when we did the orientation session, you got something called an orientation point. It’s the place where the three lines make the point. Can you put your finger where that point is?’

Her mind’s eye is too low and off to The right place.

Her mind’s eye is too low and off to The right
When he does, check to see that his finger is on the midline of his body and between 15 and 25 centimetres above and behind the head. If he puts his finger in the right place say: ‘That’s good. Keep using that point and everything should be all right.’

If he puts his finger anywhere other than in the right place, simply ask if you can do a ‘slight adjustment’. (No one has ever said ‘no’.)

Grasp his finger between your thumb and middle finger and gently pull it to the midline of the body. Tap the end of his finger with your index finger and say: ‘Pull the point to here by adjusting the lines. Tell me when you’ve got it here’. Tap the finger again.

When he tells you that the point is now where you want it, tell him: ‘That’s good. Use this point, and everything should be all right’.

If the point continues to shift excessively after doing the above adjustment, tell the students to ‘set the lines so they won’t move’.

Adjust the point and lines to the midline.

Use Orientation Review only until you do the Fine Tuning procedure covered in the next chapter. After doing Fine Tuning, this method of checking the location of the orientation point is no longer appropriate.
# 1.8.5 Fine Tuning Procedure

<table>
<thead>
<tr>
<th>What to say</th>
<th>What to do</th>
</tr>
</thead>
<tbody>
<tr>
<td>I want you to keep your eyes open during what we’re about to do, OK?</td>
<td>Explain the concept of fine-tuning a radio and how it can apply to finding optimum orientation.</td>
</tr>
<tr>
<td>Put your mind’s eye on your orientation point.</td>
<td>Find a location where there is a view that extends a long way. This can be looking out of a window. Have the student stand facing the view.</td>
</tr>
<tr>
<td>‘Look at that picture up there’.</td>
<td>Have the student check to see that the mind’s eye is on the orientation point.</td>
</tr>
<tr>
<td>With your eyes looking at that (spot/point), balance on one foot.</td>
<td>Stand next to the student and point out a particular spot or point in the vista. The spot or point should not be below eye level.</td>
</tr>
<tr>
<td></td>
<td>NOTE: It does not matter which foot she balances on. She can switch feet if she wishes.</td>
</tr>
<tr>
<td></td>
<td>Gently grasp the student by the shoulders, then release the grasp without moving your hands far from the shoulders.</td>
</tr>
<tr>
<td>Keep looking at it and balance on one foot.</td>
<td>‘Give it a push and see what happens’.</td>
</tr>
<tr>
<td>---------------------------------------------</td>
<td>----------------------------------------</td>
</tr>
<tr>
<td>Now push your mind’s eye off your point in my direction, and see what it does to your balance. I won’t let you fall (Give it good push; I won’t let you fall).</td>
<td>If the student doesn’t lean into you......</td>
</tr>
<tr>
<td>Put your mind’s eye back on point, and put your foot down.</td>
<td>NOTE: It is important that the student feels the body go out of balance in the direction the mind’s eye moves.</td>
</tr>
<tr>
<td>Tip your head forward, and look directly at the (spot/point). Now balance on one foot.</td>
<td>Locate another spot or point that is closer, about 45° below the line of sight. Direct the person’s attention to the spot/point.</td>
</tr>
<tr>
<td>Now, just like fine-tuning a radio, move your mind’s eye around, and find the place where your body is in perfect balance.</td>
<td>Look at that penny I threw on the floor and balance on one foot.</td>
</tr>
<tr>
<td>Remember, while your mind’s eye is</td>
<td>NOTE: this process takes as long as it</td>
</tr>
</tbody>
</table>
moving, your balance is out, so move it just a bit, stop it, and then check. You'll know when you've got it by the feeling that it has.

| Takes. The student may not find optimum orientation on the first attempt. |
| Don’t let her stop unless she is very close to, or has actually found, the optimum orientation place. |
| When the student has found optimum orientation, or is getting tired and is very close, use the following steps to end the process. |

| Hold your mind’s eye exactly where it is, and put your foot down. |
| Hold your mind’s eye exactly where it is and pull your (dot/dots) to where your mind’s eye is. You’re not moving the mind’s eye; you’re moving the point to the mind’s eye. |
| Let your anchor lines set and get hard where they are, just as concrete sets and gets hard. That way your point will be exactly where it should be and won’t be moving around. |

| Confirm that this is done |

After Fine Tuning, do not ask students to try to put their finger where the point is. They probably won’t be able to find it, and asking them to do so will only create confusion.

Future Orientation Review is done by simply having the student look down and balance on one foot, showing you that the balance is there.
1.8.6 **Coordination Therapy**

After the fine Tuning process is completed, there is a fast and simple way to put an end to left/right confusion problems for good. This process also addresses the dyspraxia problem. We call it Koosh Ball Therapy because we use two light, furry toy balls made of rubber band material for the process. We don’t recommend other balls like tennis balls or ping-pong balls, because they have a tendency to bounce out of the person’s hands before they are able to grasp them.

You can start doing this periodically after Fine Tuning.

Stand two to three metres away from the person (closer for small children). Start by telling the student to ‘check your point’. When he is on point (orientated), ask him to balance on one foot. He can stand on either foot, and can switch feet at any time.

Hold both balls in one hand. With the student comfortably balanced on one foot, say, ‘Catch one ball in one hand and the other ball in the other hand’.

1. Underhanded, toss each ball one at a time. Toss gently, aiming about chest high. Each time you toss a ball, say, ‘One in one hand, one in the other’.

2. When the student can easily catch a ball in either hand without losing his balance, repeat, ‘One in one hand, one in the other.’ Then toss both balls simultaneously. Aim for a position directly in front of the person on the midline of the body. If properly tossed, one ball will be on each side of the midline. Be sure to toss them so that they can be easily caught. When the student catches both balls, praise him and do it again.
3. After a while, say, ‘I am going to toss them both to one side of you. I want you to catch them without losing your balance’. Do this for each side so the student has to cross the midline with the other hand to catch both balls. Don’t aim too far to the side, or you will cause the person to lose balance.

![Crossing the midline.](image)

This exercise makes a good break activity while doing Symbol Mastery on the small words.

**1.8.7 Basic symbol Mastery**

(a) **Alphabet Mastery Procedure**

1. Familiarise students with clay. Shaping, Cutting, Rolling.
2. At any sign of disorientation, always stop and politely ask the student: ‘Check your orientation’, or ‘Get your dot/dots.’ Then resume.
3. Have the student make the upper case alphabet letters A to Z in forward order. Letters should be at least five centimetres high. Written examples of the letters should be nearby for the student to look at.
4. Ask the student, ‘Whose alphabet is this?’ Repeat the question conversationally until the student says, ‘It’s mine.’ Then ask the student,
‘Why?’ or ‘How come?’ until the student says ‘Because I made it,’ or ‘Because I created it.’

5. Have the student check to see that all the letters are correctly positioned and sequenced, and similar in size. If any errors are found, have the student compare with the examples and correct them.

NOTE: When doing Symbol Mastery, never:

- criticise the student’s artistic ability
- point out specific mistakes. Have the student find them by comparing the clay alphabet and the written reference.

6. Ask the student, ‘Are you happy with your alphabet?’ If not, ask what could be better, and have him correct it until he is happy with it.

7. Ask the student how many letters are in the alphabet. If unsure, have the student count them (slowly). Repeat this activity until the student is absolutely certain there are 26.

8. Have the student slowly and deliberately touch and say the name of each letter in forward order.

9. Have the student touch and say the name of each letter in backward order, starting from Z.

10. Note any errors, hesitations and confusions.

Touch and say the letters in both directions
11. With letters that cause confusion or get mixed up, ask the student:
   A. ‘Tell me something similar about these two letters’
   B. ‘Tell me something different about these two letters.’
   Alternate asking questions (A) and (B) until there are no more answers.
   For sequential errors or omissions, ask (with student looking at the letter):
   A. ‘What letter comes before ______?’
   B. ‘What letter comes after ______?’

12. Have the student touch and say the letters forwards and backwards. Repeat
    until it becomes easy.

13. Have the students say the alphabet forwards, looking at the letters as needed.

14. Call out a letter of the alphabet, and have the student touch and say what letter
    comes before and after that letter. Do this until the student can easily and
    quickly find any letter in the alphabet.

15. Have the student say the alphabet backwards, taking as many ‘peeks’ as
    needed to get through it. Again, look for letters that cause problems, repeated
    looks and repeated confusions. Check for orientation and apply step (11)
    above to these letters as needed. Do this until the student can say the whole
    alphabet backwards at least once without looking.

16. If any signs of struggling or frustration appear, BACK OFF from this task.
    Take a short break. Then check orientation and go back to the step just
    preceding the one where trouble occurred. Repeat that step to a new success.

17. Continue to practise the alphabet backwards and forwards until the student
    knows it and can easily and comfortably recite it in both directions. Praise
    lavishly when this is accomplished. Always take a good break after this
    accomplishment.

18. Have the student make the alphabet in lower case manuscript backwards, z to
    a, in reverse order (but not with reversed letters).
19. As above, monitor for problem letters, check orientation as needed, and have the student check for accuracy.

20. Have the student touch and say the letters in backwards order, z to a.

21. Now have the student recite the alphabet forwards. Watch for any signs of Alphabet Song, and slow the student down to say each letter separately and distinctly.

22. Randomly selecting any letter, ask the student what letter comes before and after it. Have the student peek, as needed, until he can comfortably tell you what letters come before and after every letter of the alphabet at random without looking.

(b) **Punctuation Marks Mastery**

1. Go over the definition of 'punctuation' from a simple dictionary.

2. Have the student make the period or full stop with clay.

3. Have the student write or copy the name of the mark on a small piece of paper (about 10 X 10 centimetres) after making each mark, and place the clay mark on the piece of paper in proper relation to what he has written. This can become creative game.
4. Point out each mark in various texts such as a primer, magazine, sign, etc. Also point out how each shape differs depending upon print style or typeface.

5. Have the student find the mark in various texts.

6. Referring to a grammar book or definition, go over the common usages of each mark. Emphasise what the student should do when he or she sees the mark while reading aloud. Halt for full stops, pause for commas, lilt the voice for question marks, and so on.

7. Have the student give verbal or written examples of how each punctuation mark is used.

8. Be sure the student knows how to pronounce the name of each mark.

9. Repeat steps 2-8 with the:

- question mark
- exclamation mark
- comma
- apostrophe
- dash
- hyphen
- quotation marks:
  - double and single
- parentheses
- brackets
Because words are symbols that represent both sound and meaning, it is important that the student also be coached through all the speech sounds. This doesn’t require a speech therapist, only the pronunciation key from any dictionary and a good coach.

If numbers are triggers for a student, the same basic process is done with numbers. All of this is completed before the trigger word list is started.

(c) Pronunciation Mastery
1. Using a pronunciation key in a dictionary, demonstrate and practise how each of the letters is pronounced and made by the mouth, lips, and tongue.
2. Clarify each of the various symbols (diacritic marks) used in the pronunciation key, one at a time, using many examples.
3. Clarify what a syllable is, then practise finding them and counting them in some different words.
4. Clarify the use of accents and the accent symbols.
5. Find a word in a dictionary that the student has no idea how to pronounce. Have the student work out how to pronounce it using the pronunciation key – one syllable at a time, accenting correctly.

(d) Print Styles and Typefaces
1. Using various texts, or ideally a book of printer’s typefaces, point out some differences between the letters and numbers of varying typefaces.
2. Have the student find and point out some differences.
3. Have the student note the differences between the:
   • lower case a, g, q, t and y from one print style to another.
   • upper case I and lower case l.
   • letters with and without serifs
4. Be alert for disorientations, and always have the student correct them.
5. If needed, have the student make different types of letters in clay, and note similarities and differences.
6. Good examples and sources of differing print styles are phone book yellow pages, cartoon lettering, and newspaper and magazine advertisements.

(e) Numerals Mastery

Numerals from 0 to 10 are modeled. Above each numeral the correct number of clay balls are placed in a column. Underneath each numeral comes the name spelled in clay. The learner in turn points at the balls, the numeral and the word, indicates what the number is and that it means the number of balls above it.

1.8.8 Three Steps to Easier Reading.

(a) Spell Reading Sit facing the student with the reading material on the table between you. At the beginning of the session, tell the student: ‘You spell the word. Then I will say the word. Then you say the word. If you suddenly know what the word is while you are spelling it, finish spelling it, then go ahead and say it without waiting for me.’

Present the words by pointing them out with your finger or a pencil, or revealing the words with sheets of paper as described above.
Insist that the student go slowly and easily.

It is your responsibility to catch the student’s disorientation. Watch out for:

• substitution, omission or alteration of a letter
• moving the head closer to the page
• speech changes, such as hesitation, speeding up, slowing down, or reading in a flat, monotone voice
• rubbing the neck, fidgeting or wrinkling the eyebrows.

At the first sign of any disorientation, cover the material with your hand and ask the student to check orientation. If need be, take a short break.

Praise any and all improvement. Your praise is the student’s reward. It will lift the student’s self-esteem.
During this exercise, a point will be reached when the student recognises many words while spelling them, or even before beginning to spell them. At this point, advance to the Sweep – Sweep – Spell step.

(b) Sweep – Sweep – Spell

The purpose of Sweep – Sweep – Spell is to continue training in left – right eye movement and word recognition, understanding what is read is not yet the goal. If you have been revealing the words rather than pointing them out, have the student slide the pieces of paper to reveal individual words and lines of text. As the student improves in the skills of word recognition and eye movement, get rid of the piece of paper that is slid left to right, and slide only one piece of paper down the page to reveal an entire line at a time.

The new instruction is: ‘Let your eyes sweep through (or over) the word. If the word doesn’t just come out of your mouth, sweep it again. If it doesn’t come out of your mouth the second time, spell it. Then I’ll tell you what it is, and you repeat it.’

At the first sign of any disorientation, cover the material with your hand and ask the student to check orientation.

Sincerely praise each sign of improvement.

If you are working with a child using a primer or first reader, use this step until most of the words are recognised while sweeping them. Then say, ‘This book is too easy. We need to use something harder.’ Increase the difficulty of the material one level at a time. At first the student may have some doubt or reservation about reading something harder. Say, ‘If it’s too hard, we can always come back.’

When the student can recognise almost every word at his or her appropriate scholastic level, switch to the next step: Picture – at – Punctuation.

c) Picture at Punctuation

The only purpose of reading is to understand what it read. Reading without full and complete comprehension of what is read is the source of most misunderstanding in any subject at any level.
The goal of Picture - at - Punctuation is full and complete comprehension of what is read.

In Western written languages, each complete thought is either followed by , or surrounded (bracketed) by punctuation marks. Each complete thought can be either pictured or felt.

Tell the student, ‘We are now going to add meaning to what you’re reading. To us, punctuation means “picture”. When you see a punctuation mark, make a picture in your mind of what you have just read.’

Picture – at – Punctuation is an added step to Sweep – Sweep – Spell.

Point out the punctuation marks where the students should stop and form a mental picture:

- periods or full stops
- exclamation marks
- question marks
- commas
- quotation marks
- semicolons
- dashes
- parentheses or brackets
- colons

Have the student read a short sentence or clause (only the words leading up to the first punctuation mark). Stop the student from looking at the words just read. Cover the words with your hand if you need to.

Ask the student, ‘What do you see?’

If the clause is something that cannot be pictured, like ‘long ago’, or ‘once upon a time’, ask, ‘What do you feel?’ or ‘What does that mean to you?’

Sometimes you will encounter non-trigger words or unknown words for which the dyslexic student simply has no meaning. When this happens, you can explain the meaning of the word or look it up in a simple dictionary.

Some trigger words will cause disorientations. Point out that the word is a trigger word, say ‘check your point’ and pick up where the student left off. If she has already
done Symbol Mastery on that word, you have hit a particular definition of the word that will also need to be mastered.

At some point, the student will start reading voluntarily for pleasure. Once you notice that someone is reading articles simply because they’re interesting, your job is done. Do more coaching only if it is requested, and encourage the student to use Symbol Mastery for any words or expressions that cause confusion.

1.8.9 Symbol Mastery for Words

1. Look up the word in a dictionary or glossary.
2. If you don’t know how to pronounce it, find out.
3. Read the first definition and sample sentences aloud.
4. Establish a clear understanding of the definition. Discuss it. Make up sentences or phrases using the word with that definition.

Examples of how three definitions of the word the can be represented with Symbol Mastery

1. that which is here or which has been mentioned.
   [Give me the ball. Open the book.]

2. that one of a number or group.
   [The man on the left is taller. Take the one on top.]

3. any one of a certain kind.
   [The orange is a fruit. The elephant is a mammal.]
5. Make a clay model of the concept described by the definition. How to make a clay model is described in the hints below.

6. Make the symbol or the letters of the word out of clay. Make sure the word is spelt correctly. Use lower case letters unless the word is a proper noun that is normally capitalised.

7. Make a mental picture of what has been created.

8. Say aloud to the model: ‘This is (word), meaning (definition)’.
   (Example: ‘This is tall, meaning of more than normal height.’)

9. Say aloud to the word or symbol: ‘This says (word).’
   (Example: ‘This says tall’).

Make up more sentences and phrases until you can do so easily. Be sure the usage of the word matches the definition you have just made.

These additional exercises are optional:

A Touch and say the letters of the word.

B Write the word.

Before diving into the small words, practise the steps of Symbol Mastery on an easy word such as lamb, apple, or cat. Nouns tend to be easy to picture and make in clay. After that, try a verb or adjective such as jump or tall. This will get the student used to doing each of the steps.

Depending on the individual, there may be additional trigger words besides those listed below that need to be mastered. These could be key words in a difficult subject, words that are consistently misspelt, homonyms, new vocabulary, or words that are repeatedly misread. Just note them as they are encountered and add them to the list of words that need to be mastered.

1.8.10 Continuing the Process

The task of correction isn’t really complete until the person’s compulsive solutions no longer operate. So long as the person continues to use the old solutions, he or she might as well keep the old problem, because nothing will change permanently. So in order for dyslexia to be corrected, the old, compulsive solutions simply have to go.
The entire sequence of events that resulted in the person acquiring an old solution in the first place began because the person couldn’t think with a trigger word. Mastering just the first or primary definition of a trigger word will allow the person to begin to think with that word non-verbally. That word will cease to cause an old solution to occur. As each word is mastered - even partially - the old solutions will fade away on their own.

The old solutions are no longer stimulated, so they don’t automatically happen. As the person experiences life, he or she will discover things that work better than the old solutions did. As soon as the person experiences as better way of doing things, the old solutions are replaced.

The idea that deeply embedded compulsive behaviours can simply fall away on their own may sound incredible, but they do, especially in a patient, supportive environment. After a few months, most of them should disappear.

Experiencing the loss of an old solution is all the proof people need in order to know with certainty that their dyslexia is being corrected, and that the change is permanent.

This isn’t to say dyslexics should master only the first or primary definitions of trigger words. That is when the old solutions begin to disappear, but a word isn’t truly mastered until all its definitions are mastered. Dyslexics should exercise their gift of mastery and really get the job done thoroughly.

The person should also remember to check orientation whenever disorientation occurs for any reason. There will be things other than words in the person’s life or environment that stimulate disorientation. These spontaneous disorientations aren’t dyslexia, but they do share the same characteristics. They can often cause phobias. Orientation turns them off.

The person should also continue to master confusing words as they are encountered, using the Symbol Mastery procedure. This is a great way to study new subjects. In fact, for many corrected dyslexics attending colleges and universities, simply mastering the words in the glossaries of textbooks with this process has enabled them to achieve consistently high marks.
1.9.0 RATIONALE OF THE STUDY

Reading is a developmental task that every child in today’s society has to be able to master. Today children are being made aware of sounds, letters and words as early as the age of four years in order for them to find reading easier when they get admission in school. It is expected from every child of nine years that he should be able to read fluently, make headway in scholastic sense as well as be able to read for pleasure. Unfortunately there are many children who struggle with this task and it means that they are largely at risk of suffering serious developmental problems, such as low self-esteem as well as anxiety, emotional and behavioral problems. It is estimated that between five to ten percent of the population experiences learning disabilities and reading disabilities are perhaps the most common among them. Dyslexia is that reading disability which effects maximum number of school going children - 14.63% (Bains-1997), 24.42% (Kohli-2001) and 23% (Brazeau-2005). Children suffering from dyslexia evaluate themselves as inadequate if they repeatedly fail academically and especially because others are aware of their disability, such as their parents, educators and friends. It contributes directly to the formation of their unrealistic self-image. If they do not receive help in time it can worsen and can render them overly sensitive to criticism and reprimands. Children with reading problems react emotionally, become frustrated, lose their self-esteem and develop a negative image due to repeated failure and negative feedback, such as poor academic performance, being teased by peers and pressure coming from educators and parents, dominance of feeling of loneliness, anger, sadness, denial, worry, shame and nervousness, that can lead to different psychological problems such as anxiety, mood and behavioral/conduct disorders. Children with a reading disorder run the risk of developing anxiety; depressive and behavioral problems and they are also inclined to having problems concerning peer relationships. They also react less sensitively in ambiguous social situations. Children with Dyslexia are more likely to become early school leavers to withdraw from friends and family, to commit suicide. This makes dyslexia a priority area of research among educators. Various researches related to this had been conducted all over the world (Jorm-1983, Yuili and Oakhill-1988, Khader and Rama-1988, Mohite-1989, Rath-1991, Collins-1996, Moore and Wade-1998, Tahiliani-1999, Brooks and Hutchison-2000, Nagia-2002, Shaywitz -2003, Shovman and Ahissar-2006, Berininger...


In the present study the investigator wants to study and compare the effect of Ron Davis Approach and Eclectic Approach on reading ability among primary school dyslexic children. Ron Davis Approach and Eclectic Approach are the intervention programmes about which many positive anecdotal reports have been made. Studies have also been conducted about the effectiveness of Ron Davis Approach and Eclectic Approach separately and these have rendered positive results. Since a reading disorder
can have such a hugely negative influence on an individual's reading ability, academic performance and psychological functioning and in many cases the usual methods of interventions are not found successful. Thus the scientific research regarding the Ron Davis Approach and Eclectic Approach is justified.

1.10.0 STATEMENT OF THE PROBLEM
The problem was worded as given below:
Effect of Ron Davis Approach and Eclectic Approach on Reading Ability among Primary School Dyslexic Children

1.11.0 OPERATIONAL DEFINITIONS
Operational definitions of all the important terms included in the statement of the problem are as under:

1.11.1 Dyslexia: Dyslexia is evident when accurate and fluent word reading and/or spelling develops incompletely despite conventional instructions, adequate intelligence and educational opportunities.

1.11.2 Ron Davis Approach: Ron Davis Approach was originated in 1984 in California and is being applied worldwide by facilitators in six different languages. In this approach, students are guided verbally and visually to obtain an orientation point. Students are guided to stabilize their disorientation with the help of orientation counseling. Then multisensory techniques are used to further correct their reading problems.

1.11.3 Eclectic Approach: Eclectic means not following any one system, but selecting and using what are considered the best elements of all systems. A teacher may choose two or three approaches that provide broad-range remedial instructions. With these broad-range approaches as a base, the teacher may add two or three variations that are essentially supplementary methods to be used compatibly with one or more of the broad range approaches. Then if an approach seems to fail with a student, the teacher can select another. If one part of the second approach seems ineffective, the teacher can delete that portion and use a compatible supplementary method to teach the skills needed. In the
present study the investigator used Alphabetic Phonic Method, Behavioral Modification Method as well as Multisensory Structured Linguistic Method as broad range approaches to provide remedial instructions.

1.11.4 Reading Ability: In this study, the term reading ability comprises of word reading, reading comprehension, spelling and word fluency. Hence in the present study whenever reading ability of the students is talked about that would mean the sum total of word reading, reading comprehension, spelling and word fluency of the students.

1.12.0 OBJECTIVES

The following were the objectives of the present study:

1. To identify dyslexics from among primary school children studying in English medium schools of Punjab.

2. To compare the adjusted mean scores of word reading of the students taught with Ron Davis, Eclectic and Traditional Approaches by considering pre-word reading as covariant.

3. To compare the adjusted mean scores of reading comprehension of the students taught with Ron Davis, Eclectic and Traditional Approaches by considering pre-reading comprehension as covariant.

4. To compare the adjusted mean scores of spellings of the students taught with Ron Davis, Eclectic and Traditional Approaches by considering pre-spelling scores as covariant.

5. To compare the adjusted mean scores of word fluency of the students taught with Ron Davis, Eclectic and Traditional Approaches by considering pre-word-fluency as covariant.

6. To compare the adjusted mean scores of reading ability of the students taught with Ron Davis, Eclectic and Traditional Approaches by considering pre-reading ability as covariant.
To compare the adjusted mean scores of academic achievement in English of the students taught with Ron Davis, Eclectic and Traditional Approaches by considering pre-academic achievement in English as covariant.

1.3.0 HYPOTHESES

The following were the hypotheses of present study:

1. A significant percentage of school going primary school children do suffer from dyslexia.
2. There is no significant difference in the adjusted mean scores of word reading of the students taught with Ron Davis, Eclectic and Traditional Approaches by considering pre-word reading as covariant.
3. There is no significant difference in the adjusted mean scores of reading comprehension of the students taught with Ron Davis, Eclectic and Traditional Approaches by considering pre-reading comprehension as covariant.
4. There is no significant difference in the adjusted mean scores of spellings of the students taught with Ron Davis, Eclectic and Traditional Approaches by considering pre-spelling scores as covariant.
5. There is no significant difference in the adjusted mean scores of word fluency of the students taught with Ron Davis, Eclectic and Traditional Approaches by considering pre-word fluency as covariant.
6. There is no significant difference in the adjusted mean scores of reading ability of the students taught with Ron Davis, Eclectic and Traditional Approaches by considering pre-reading ability as covariant.
7. There is no significant difference in the adjusted mean scores of academic achievement in English of the students taught with Ron Davis, Eclectic and Traditional Approaches by considering pre-academic achievement in English as covariant.
1.14.0 DELIMITATIONS

The present study was delimited to the following aspects:

1. The study was conducted in Nawanshahr city of Punjab State.
2. Only ten English medium schools were taken for the present study.
3. The sample of the study consisted of 147 students of third and forth grades at the identification stage.
4. The sample of the study consisted of only 30 dyslexic students at the experimental stage.