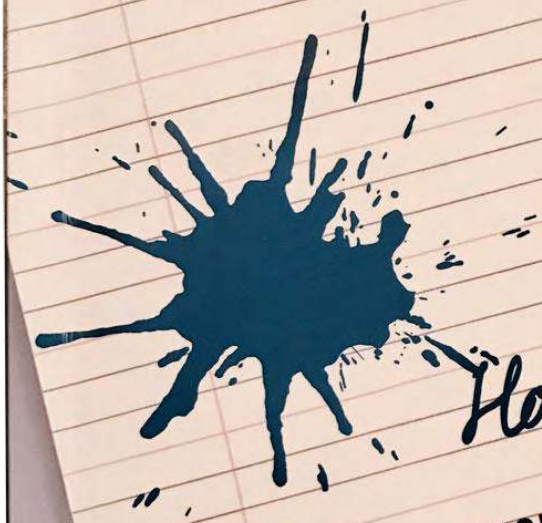
Children with Learning Difficulties



How to Help

A GUIDE FOR PARENTS AND TEACHERS

BELA RAJA

CHILDREN WITH LEARNING DIFFICULTIES – HOW TO HELP. A GUIDE FOR PARENTS AND TEACHERS

BY

BELA RAJA

DEDICATION

To my Spiritual Guru. I am blessed to receive her guidance.

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FOREWORD

I have always strongly believed that every individual has something special and unique to offer the world. However, conventional thinking has forced a one – dimensional view on the idea of success. Today, most parents look at aptitude only in terms of grades and certain skill sets. We often opine that only when a child has a certain type of talent, will s/he climb the citadels of success. But look at the history of human accomplishment – some of our greatest men and women have over come challenges to achieve success. Every child has something incredibly special about him or her and as a parent, we have to nurture that talent and always reassure the child about it's uniqueness.

Frankly, I was never a great student in school. I was too busy playing and the aptitude of appreciating the visual and spatial quality has helped me in my vocation. At the risk of sounding immodest – I have to assert that even with my perceptible childhood impediments, I have still managed to accomplish a reasonable amout of success.

Some of my greatest heroes of the time are scientists Stephen. W. Hawking and matehmatician John. F. Nash. Both their lives have been scarred with brutal diabilities and I can't think of two men who have contributed more to our world than them. I think this speaks volumes about the human spirit and shows us that nothing is impossible. Their stories give each one of us hope and a resolve that we can conquer any barrier.

I have to confess that I can’t comment on the specialized subject matter of the book with a great deal of authority. But the issue strikes a chord with each one of us. We have experienced school and are perhaps appreciating it all over again with our children. Coping with Learning Disabilities can be pretty stressful and Belas’ book offers incisive insights to parents, family and teachers on managing the disability. Her timely ,coherent and motivating book circumspectly knits together ideas and techniques from several disciplines and provides pragmatic strategies for parents and teachers to help children grow into confident young people.

Hafeez Contractor

PREFACE

The human being is the most complex and dynamic of all systems. There is a vast potential of intelligence and creativity and it is largely on the basis of these attributes that we as a species, have been able to manipulate our environment to meet our requirements. We have learnt from our experiences and as history tells us, we have at times exulted in our success and despaired at our blunders but we have continued to learn. To a receptive individual, learning takes place all the time however during the stage of childhood, it is very concentrated. An impediment to any aspect of this learning creates problems for the young human.

Since I began working in the field of Learning Difficulties, the number of children I have interacted with, has been quite large yet I cannot recall two children with the same set of learning difficulties or identical manifestations of similar problems.

This book on Learning Difficulties represents my intense involvement with the subject and the book has been informed by a lot of my experiences with children through the years. The remedial methods explained are among some of those that have worked the best with children.

The well – known Chinese proverb, “One parent equal to ten thousand schoolmasters” speaks volumes about the effect the parent can have on the child. A teacher spends a limited amount of time with the student and that too, is with several other children around. The parent has the opportunity to give undivided attention to the child every single day of

the week and this regularity and intensity of intervention is what makes such a learning system so successful. Moreover, as in any effective system where learning takes place in both directions, working with the youngster, enables the parent to understand the child better and forges a very healthy bond of communication between the two. A responsive parent and an informed teacher provide a very stable and strong foundation for the growing child in any situation. The ideal environment for remediation would be where the teacher, the parent and the special educator work together.

IN working with parents and teachers, I found it necessary to be able to provide them with material on the subject that was easy to read and understand. After the initial exposure was made, those who wanted to delve further into the subject had several resources but that initial exposure to understanding had to be intersesting and non-threatening in technical terms. This volume is intended to meet that requirement.

The term ‘Difficulties’ in the title has been used over the alternate, more commonly used term ‘Disability’ because the term ‘Learning Disability’ indicates that the fault lies with the child thus leading to a negative connotation. Through the text of this volume, both the terms have been used and bear no other significance than the fact that they are both different terms describng the same condition.

I passionately believe that differently abled children are so, with a purpose. There is an element of giftedness in the child and it is for us to identify this, draw it out and nurture it, which is a remarkably daunting task because ‘ giftedness. The topic of giftedness and its co existence

with learning difficulties, which has been briefly examined in this volume, is a topic for a whole book, by itself.

The design of the book cover, which shows a prominent inkblot on the page of a student's notebook, signifies the confusion that is present in the mind of a child with learning difficulties. The attempt is to create order out of confusion.

Throughout the book, all unnamed references to the child are as 'He'. This has no other significance except for the fact that the usual 'he/she' gets eliminated since it was playing havoc with my flow of thought.

If this book shows the way to parents, teachers and students, it will have served its purpose.

I would be happy to receive comments at belaraja@yahoo.com.

Bela Raja

March 2006

ACKNOWLEDGEMENTS

A lot of the content of this book is the culmination of my experiences with children over the years and growth and learning at the hands of people who may have been unaware that they were contributing to my learning continuum.

I begin with acknowledging both my daughters. The younger of the two, Abha, self assured and dynamic - is the reason I am in this field today and Avni – for being so complete and wise in every way that I had time and energy to devote to my work. Both Avni and Abha have been excellent sounding boards as the book took shape.

In trying to understand children, I drew a lot on my own experiences as I grew up. I acknowledge my parents for giving me the warmth and security and for telling me off, for it shows they cared. My interaction and innumerable childhood fights with my brother Sundip taught me a lot about sibling relationships and I now know those fights were actually 'bonding' sessions.

I acknowledge my family of in-laws, for giving me the freedom to do what I wanted.

With regard to the book in its printed form, sincere thanks to my publisher, Sangeeta Bhansali - her enthusiasm for the book was very reassuring.

I must mention Dr Sunita Sodhi of Educare, Delhi and Dr Rukmini Krishnaswamy, Director of The Spastics Society of Karnataka over here.

I have learnt a lot from them and in fact, my journey began with Dr Sunita Sodhi.

Dr Satish Inamdar, Krishnamurti Foundation, India was one man who shared my vision of the perfect learning environment for children. Along with Mallika Sen who was the principal of The Valley School, Bangalore, they supported and encouraged my work with children and with their backing, I was able to set up one of the first resource centres for children with special needs at the Valley School in Bangalore.

There was one person who, I suspect unknowingly, helped me realise my own potential. That is Ravi Parthasarathy. His complete faith in me gave me confidence in myself. I will always be grateful for that.

I must also acknowledge the man who taught me to 'think on my feet', E.N. Venkat. His unique way of thinking has always enthralled me.

Professor Richard Rose, Director of the Centre of Special Needs Education and Research (CeSNER) at the Uniniversity of Northampton UK, is the person who first gave me access to an international perspective on Special Needs. He has also tightened the script and edited the contents. I have learnt a lot from him.

I wish to acknowledge the efforts of Shefali Joshi and Shaila Rao for proof reading the manuscript.

My sincere thanks to my publisher, Sangeeta Bhansali – her enthusiasm towards the book was very reassuring. A big thank you to Rishi Anand and Anagha Surve for making my manuscript come alive!

This acknowledgement would be incomplete if I did not mention the parents who put their faith in my abilities and the children that I have worked with – for that was and is a living, breathing classroom for me, bless them.

Finally, I must acknowledge my husband Hemang who is also my ‘best friend’. He was the one who knew that I could write this book before I realised that I could. He has listened untiringly, tolerated unflinchingly, and supported unstintingly, my entire journey with this book.

Bela Raja

AUTHOR'S NOTE

Every attempt has been made in order to make this book easy to read. The print is larger than normal. A lot of spacing has been used to give the reader visual relief while reading. The use of elements that could distract from the easy flow of the text has been minimized.

PREFACE TO THE ELECTRONIC EDITION

It has been over ten years since this book was published. Like all things meant to stay, the circulation of this volume picked up slowly and steadily and went on to become a much read book for parents, teachers and professionals alike.

This book, “Children with Learning Difficulties – How to Help. A Guide for Parents and Teachers” had just gone into reprint when I decided that the information presented here should now be freely and easily available to all so, it was decided that we put it up on my website.

I wish to acknowledge the efforts of Mr D.D Shetty who very kindly typed out the whole book and created a document which we could upload onto the website.

I present here to you, the electronic version of

“Children with Learning Difficulties – How to Help. A Guide for Parents and Teachers”

CHAPTER 1

THE DIFFERENTLY ABLED

Introduction

As education for children appears to get more and more complex, one sees several children struggling to deal effectively with the curriculum. The pressures on the students of today are enormous. There is an explosion of information as science and technology makes leaps and bounds. The learner of today faces information from various different directions and the skills required to deal with this new influx have also changed. Not all teaching institutions address, even recognize, this fact.

Children, with their indomitable spirit and quest for knowledge, cope with the pressure but there are nearly about 20% of school going children who find coping with the curriculum very difficult indeed.

Neither are these children slackers nor are they lazy. They are poor performers in spite of the desire to work hard and in spite of having the requisite intelligence levels. They may simply have abilities that are different from most other children.

Such students, who are differently abled usually have intelligence levels that are either normal or very often, above normal. Yet their academic

performance would lead parents and teachers to believe that they are ‘slow’, ‘lazy’ or ‘stupid’!

In the light of extensive research done in the field of learning disabilities and what is now known about differently abled children, it becomes necessary for every parent and every teacher to be able to identify and help them

The question then is, what is the best way of meeting the special needs of differently abled children to enable them to achieve their full potential?

This book will address the issue by dealing with the various aspects of learning difficulties among students. It will also cover the etiology of learning disabilities, the signs and symptoms which a parent or teacher needs to be aware of and the management of the condition at home and in the classroom.

There is at present a growing concern for the child with learning difficulties, arising from the fact that the child is ‘differently abled’. This enigma however is not new. Children from all walks of life have experienced such difficulties throughout the years.
Indeed, there is evidence that some of the world’s most distinguished people have had unusual difficulty in certain aspects of learning.

Famous Personalities and difficulties with learning

Pablo Picasso had a very difficult time in school. He had a difficulty in reading because he could not understand the orientation of letters. Despite his difficulty, he was able to catch up with the curriculum but he never really benefited from his education since his difficulty troubled him throughout. Picasso took art to a new level. His famous works include 'Old Man with Guitar' and 'Guernica'.

Tom Cruise was born in a poor family. He constantly moved from one school to the other since his family kept shifting from place to place as his father looked around for work. Like his mother, Tom suffers from dyslexia. He is left handed but uses his right hand to write. Tom was good at athletics but a knee injury interfered with a career in sport. Today, he is one of Hollywood's most famous stars.

Richard Branson found school to be a nightmare. He never made it through high school. His mind kept going blank at the most crucial of times. He was terrible at maths. 'Fortune', the fortnightly magazine carried an article in May 2002 on 'The Dyslexic CEO'. In that article, Richard Branson talks about how, till very recently, he confused gross profit with net profit. Finally a board member told him,
"Pretend you are fishing. Net is all the fish in your fishing net at the end of the year. Gross is that plus everything that got away!"
Richard Branson, founder of Virgin Atlantic Airlines says,
"If I had been good at math, I probably would have never started an airline".

Thomas Edison, the brilliant scientist and inventor who obtained 1093 patents by the age of 21, had a difficulty in school. He was called abnormal and mentally defective and was thrown out of school when he was 12 years old. He was supposed to be terrible with matehmatics and had a difficulty with words and speech. . He recalled that his father thought of him as stupid while Edison thought of himself as a dunce.

Auguste Rodin, the great French sculptor was known as the worst pupil in school. His teachers felt that it was not possible to educate Rodin and they advised his parents to find him some work rather than send him to school. They felt that Rodin would never be able to make a living!

Leonardo Da Vinci, creator of the famous 'Mona Lisa' was believed to be suffering from a number of learning disabilities including dyslexia and attention deficit disorder. Da Vinci initiated many more projects than he ever completed. His manuscripts were written backwards, in a right to left manner as in a mirror image. The manuscripts had typical spelling errors. Da Vinci managed his learning difficulty by visually depicting his thoughts. His creativity, analytical abilities and futuristic inventiveness have not yet been matched.

According to family legend, **Albert Einstein**, the great mathematical genius was a slow talker, pausing every now and then, to think of what he was going to say. Until the age of seven, he formulated each sentence no matter how simple, silently with his lips before speaking it out aloud. He was very poor at schoolwork and it was thought that nothing good would come of him. Einstein's language disabilities persisted through life. Writing was difficult for him and he communicated badly through

writing. In describing his thinking process, he explained that he rarely thought in words.

Woodrow Wilson, the twenty eighth president of the United States did not learn his letters until he was nine years old and he could not read till he was eleven years old.

Charles Schwab, owner/CEO of Charles Schwab Inc. a premier investment firm in the U.S, was very strong in math, science and sport but anything involving English "was a disconnect". He could not write quickly enough to capture his thoughts. He couldn't listen to a lecture and take legible notes. He could not memorize four words in a row. He does not think he ever read a novel in high school. He consistently thought himself as 'dumb'.
Today, he runs an investment firm that has revolutionized several aspects of the business and along with his wife Helen, has created a foundation to help parents of children with learning difficulties. (http://www.SchwabLearning.org).

It is believed that **Akbar the Great** had a learning disability. The evidence is circumstantial, though. He could not read or write but his governing policies were extremely brilliant.

These people of such eminence fortunately were able to overcome their learning disabilities by devising their own strategies of dealing with it. They successfully overcame their initial failure but that was unguided and most likely, by sheer chance. Many youngsters are not so lucky.

Consider for example a 10-year-old child whom we shall call Raj. When he started school in class one, Raj was a playful, active and inquisitive child. He had many friends. He loved listening to stories and asking questions about various things. He enthusiastically participated in class plays and other activities. However, he did not like to write. His handwriting was untidy and his spellings were very poor. Eventually as time went by, Raj started falling back in his work. He became withdrawn and quiet. His written work was always incomplete. His homework would be unfinished. His teachers and parents were upset with him and confused because they knew that Raj was basically a smart child and they could not figure out why Raj was doing badly in school. They thought he was irresponsible and lazy. Raj knew that was not true but at the same time, ***He did not know what was wrong with him***.

If Raj's difficulty is diagnosed in time and he receives remedial help, Raj will emerge as a confident self-assured youngster. If he does not…the future certainly seems uncertain for him.

As a society, it should be our endeavour that less and less is left to chance with the children of today and we must be able to reach out and empower those children who learn differently, in a very definite and structured manner.

CHAPTER 2

WHAT IS A LEARNING DIFFICULTY AND WHY DOES IT HAPPEN

Consider two individuals Azad and Bimal.

Azad is a reasonably self-assured child. He is very good at music, math and logical thinking but very often, when he gets ready to go to school he ends up putting on one navy blue sock and one black sock. This confusion with colour happens to him very often. He mistakes particular shades of green for blue, sometimes brown for red and so on. His mother, sensitive to her son's needs, puts out a matching pair of socks for him, whenever he requires. He is a happy person, hoping to become a software engineer when he grows up.

Bimal is a very talented artist who wants to be an interior decorator when he grows up. His visualization of space and sense of colour is extremely good. He is at the top in his art class and already has had a few small exhibitions, which have been very well received. But, he is very poor with complex math. He does not have a head for figures and constantly gets confused when dealing with them. His math teacher has worked very hard to ease the pressure for him. As soon as he clears his board exams, he plans to drop math and enthusiastically pursue art.

What does one notice when considering the cases of Azad and Bimal? Each has a specific area of difficulty where they get confused and are not able to cope. Each of them has figured out what their difficulties are. They have devised their own ways and means of dealing with them. Azad has decided on a career that will have nothing to do with colour. Bimal is going to pursue art and drop math at the first chance possible.

Consider a third person called Charlie. Charlie is a very bright student. He is very quick to understand whatever is taught in the classroom, especially when the teacher explains a new concept. He is able to hold discussions and argue intelligently on various issues. However when it comes to writing, his notebook is a mess, full of scratches and spelling errors. He fails to copy from the blackboard in time and he leaves homework assignments undone. His teachers know that he is a bright child so when his homework is undone, they attribute it to laziness. The class teacher reports to the parents that the boy is lazy and the parents get upset with him. Everybody feels that he needs to ‘try harder’. But the poor student, trying his best as it is, has no clue of how to ‘try harder’.

Now, compare Charlie to Azad and Bimal. Each has an area of difficulty. The only difference is that the difficulties that Azad and Bimal face are very visible to all and most importantly to themselves so they are able to deal with it and/or ask for help. Secondly, their difficulties do not really interfere with their academics in the long run and they have instinctively chosen professions that will eliminate the area of difficulty.

But Charlie has no such luck. Firstly, he does not know why he has trouble writing and secondly, all his schoolwork and tests and exams are

based on a written output so his difficulty is all- pervasive. It interferes with every aspect of his academic life.

These three children are similar in all ways except for the three separate areas of difficulty. Yet only one suffers a tremendous setback. Why? As a matter of fact, if each one of us closely considers our own strengths and weaknesses, we would all find some area of difficulty in ourselves.

This has to do with circuitry in the brain. The human brain, in all its complexity is never wired with 100% accuracy so each of us has strengths and weaknesses that make us the individuals we are.

This would mean that a child with a learning difficulty is simply, a child who has imperfect wiring in that area of the brain that deals with the ability to read and/or write.

(A learning difficulty can arise due to imperfections in other skills too but for the sake of simplicity, we will deal with the ability to read and write).

Definition

The definition of a learning disability according to the World Federation of Neurology is:

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

A child is said to have a learning difficulty when there is a marked difference between the intellectual potential of the child and his/her actual academic performance in spite of equal economic, cultural and social opportunities to learn.

Why Does a Learning Disability Happen

Broadly speaking, there are two reasons why a person can have a learning difficulty. One is due to inherited characteristics – what comes in through the genetic pool. The second is acquired through certain conditions like malnutrition of the mother during pregnancy, trauma to the head at birth or through an accident; the usage of certain types of drugs.

CHAPTER 3

Different aspects of Learning Difficulties And Understanding The Terminology

A child, with a difficulty in learning, encounters daunting problems due to a lack of understanding of the difficulty that he faces. He is unable to understand why other children, often less bright than himself seem to be able to acquire skills in reading, writing, spelling and arithmetic while he finds it very difficult to deal with them. The problem then gets compounded when parents and teachers scold the child for not 'working hard enough'!

For the hapless student, this may be lead to temper tantrums, psychosomatic ailments such as headaches or tummy aches, bed wetting or erratic behaviour like acting up in class or being aggressive and rude to others. Various excuses are made to get out of study sessions and to get out of going to school to face what the student perceives as a 'hostile' environment.

As mentioned earlier, the first indication of a learning difficulty is a discrepancy between the intellectual potential and the academic functioning of a child.

This means that one may be dealing with a normal or above normal level of intelligence, which directly contributes to three factors:

(1) Potential

(2) Frustration Levels

(3) Self Esteem

Potential

The student with a learning difficulty, most often has the potential to perform as well as, if not better than his peers provided his 'dominant mode of learning' is identified and utilized. If the student does not receive the kind of remedial help that he requires, it would mean a loss of potential and the loss of opportunity for the student to develop and highlight whatever his areas of strength may be.

Frustration Levels

The frustration tolerance of children who have learning difficulties is very low. This happens since, being intelligent, the student wants to access information, study and understand his environment, yet is not able to because of a reading or a writing problem.

He has no idea of what it is that is preventing him from achieving his desired goal and this leads to immediate frustration and manifests as behavioural or psychosomatic disorders.

Self-Esteem

The self-esteem of the learner suffers a huge setback and this is probably the most significant and disturbing aspect of a learning difficulty. The student is very quick to understand that something is wrong, which is why he is unable to access information properly but does not know why. He is quick to see that his peer group apparently has no difficulty in performing tasks that he finds intimidating. Again, he does not understand why. He then concludes to himself that he must be 'stupid' or 'dumb'. The irony is that he is neither. Rather, he is quite the opposite of stupid and dumb.

Ronald Davis in his book, "The Gift of Dyslexia" talks about the time he was a guest on a television show. He was asked about the positive side of dyslexia and he went on to list a dozen or so famous dyslexics. The

hostess then commented, “Isn’t it amazing that all those people could be geniuses ***in spite of*** having dyslexia.” She had missed the point. Their genius didn’t occur ***in spite of*** their dyslexia but ***because*** of it!

Ronald Davis, a dyslexic himself, is the founder of the Reading Research Council’s Dyslexia Correction Centre in California. ‘Learning Difficulties’ is more popularly known as ‘Learning Disabilities’ the world over. Specific among Learning Disabilities are conditions like Dyslexia, Dyscalculia, Dysgraphia and Dyspraxia.

- **Dyslexia**, the most common and well known of specific learning disabilities is basically a difficulty in reading.
- **Dyscalculia** is a form of dyslexia where the difficulty is primarily with numbers.
- **Dysgraphia** is yet another form where the student has problems with handwriting.
- **Dyspraxia** is a motor difficulty that can affect body movement. It can manifest as clumsiness, handwriting problems or speech difficulties.

No specific difficulty occurs in isolation. A child with a learning difficulty/ disability has a cluster of symptoms that hamper learning.

Dyslexia and Slow Learning

A mistake that is frequently made is to call dyslexic children, slow learners. Dyslexic children are *not* slow learners. Slow learners are those learners with below average intelligence and intervention strategies for such learners differ depending on the diagnosis. Remedial strategies for the dyslexic child would involve conceptual understanding while

repetitive learning forms the crux of the remedial programme for slow learners.

A learning disability like dyslexia is a condition. It is not a disease and therefore it cannot be ‘cured’ since there are no ‘germs’ to kill. A student with dyslexia can very effectively be taught how to manage the condition and circumvent it by using strategy. The student himself very often develops his own strategies in effectively dealing with his condition.

The condition can be likened to a student who wears spectacles. The reason a person wears spectacles is most often because he is short sighted – he cannot see very well and therefore without spectacles, cannot read from a book. Should this student decide not to wear spectacles, he would not be able to see properly and therefore would miss out on a lot of learning. The situation compounds if corrective action is not taken. In the case of the person with poor eyesight, corrective action would mean using spectacles. In the case of a student with dyslexia, corrective action would mean remedial treatment.

Many people with dyslexia or similar specific learning disabilities have certain similar mental functions, such as:

1) They can utilize the brain’s ability to alter and create perceptions (primary ability)
2) They are more curious than average
3) They are highly aware of the environment
4) They think frequently in pictures rather than words
5) They are highly intuitive and insightful
6) They think and perceive multi-dimensionally (using all senses)
7) They can experience thought as reality
8) They have vivid imaginations.

These eight basic abilities if not destroyed or suppressed by the system the student is subjected to, can result in higher than normal intelligence and extraordinary creative abilities.

CHAPTER 4

Symptoms Of Dyslexia – What To Look For?

Children with dyslexia and other learning disabilities exhibit a wide range of symptoms. These include problems with reading, mathematics, comprehension, writing, spoken language, or reasoning abilities.
Since one is now aware that the primary characteristic of a learning disability is a significant difference between a child's academic achievement and his or her overall intelligence, we shall look at some of the typical symptoms exhibited by a child with learning disabilities.
Typically, there are five general areas where difficulties are seen:
Spoken language: delays, disorders, and deviations in listening and speaking
Written language: difficulties with reading, writing and spelling
Arithmetic: difficulty in performing arithmetic operations
Reasoning: difficulty in organizing and integrating thoughts
Memory: difficulty in remembering information and instructions.
These difficulties may manifest in any combination and would affect different aspects of the child's functioning as follows:

Physical:

- General awkwardness
- Poor visual – motor coordination
- Confusion between left and right (mixed dominance)
- Difficulty in concentration
- Hyperactivity

Cognitive:

- Difficulty with the concept of time (temporal concepts)
- Distorted concept of body image
- Difficulty in differentiating between shape, size, colour
- Poor organizational skills
- Difficulty with abstract thinking
- May lag in developmental milestones

Behavioural :

- Low frustration tolerance
- Impulsive behaviour
- Mood swings
- Difficulty in making decisions
- Overly excitable during group play
- Enuresis (bed wetting)

Academic :

- Reversals in reading and writing
- Difficulty with copying from the blackboard
- Difficulty with sequencing tasks
- Inability to follow multiple instructions

Before we list specific symptoms, it is very important to understand that no child will have all the symptoms and almost everyone has some symptom or the other. Some symptoms are more common than others. **Cause for concern arises when a significant cluster of symptoms is seen and when it affects daily living.**

‘At risk’ before six

Most of the symptoms that will be listed hereafter are valid only after the age of about six and a half years. Before that age, they are developmental and occur in children as a normal, exploratory routine of learning that the child undergoes. The pre school symptoms are not conclusive evidence that a child will have learning disabilities once in school; rather it indicates that the child is at risk for learning disabilities. Since assessments take place after the age of six years, a child who presents certain symptoms before that would be termed as 'at risk.'

Pre School Symptoms (pupils may exhibit some or all of these):

- History of slow speech development
- Confusion between left and right
- Undermined hand preference – switching between the use of the left and the right hand
- Difficulty in fastening buttons, tying shoelaces
- Difficulty in understanding directions e.e. in/out, before/behind
- Does not respond immediately when called out to
- Difficulty in carrying out a sequence of instructions
- Constant falling over one's own feet
- Very messy handwriting

The above symptoms indicate a possible difficulty that may appear once the child is in school. The presence of these symptoms is not conclusive and should **never be used to diagnose a learning disability**

A child is admitted to class one at around the age of six years. This is also when reading and writing begins to form a large part of the academic curriculum. Any disability that the child may have shows up very clearly.

It is just a matter of knowing what to look for and how to interpret what one sees.

Reading:

Children with learning disabilities can have difficulties in any area of learning and development but poor reading skills are the handicap of the greatest number of such children. The most predominant difficulty among children is a disability in reading. This gains further importance since reading is an all – pervasive activity throughout the student's academic life and even much beyond.

The teaching of reading is one of the earliest acts of academic instruction imparted to a child and has been a prime responsibility of the schools.

A difficulty in reading can manifest in various ways, such as are listed below:

Checklist for Reading Errors:

1. **Word by word reading** – the student is so involved in the effort of reading that he unable to comprehend what he reads. There is no punctuation, no intonation and no voice modulation.
2. **Poor pronunciation** – the student mispronounces words while reading. This could be due to several reasons like reversals ('dog' as 'bog'); inversions ('was' as 'saw'; 'from' as 'form'; 'left' as 'felt'); faulty sequencing of syllables ('animal' as 'aminal') etc.
3. **Substitutions** – The student uses a more familiar word instead of the word printed ('home' for 'house'). The positive side of this error is that the student is aware of the context and is

therefore able to quickly substitute a word that is similar in meaning.

4. **Difficulty in keeping to the correct place on the line** – While reading if the student gets distracted and looks away from the text, he has a difficulty in getting back to the place where he was.
5. **Difficulty in switching from one end of the line to the beginning of the next one** – again, when the student gets distracted while reading, when he returns to the text, he misses a line.
6. **Basic sight words not known** – there are around 340 basic 'sight' words. A sight word is a word that occurs frequently in the English language and it has to be recognized on sight. Examples of sight words are : who, what, there, could etc. (See Appendix)
7. **Addition/omission of letters** – Sometimes the student does not read out the 's' at the end of the word or adds an 'ed' on his own ('call' read as 'calls' or 'called')
8. **Addition/omission of words** – while reading out from the text, the student adds or omits words at will.

It therefore becomes necessary to know what goes into the acquisition of the skill of reading before considering the remedial techniques.

Learning to read

The process of learning to read can be divided into two phases: (1) Word recognition (2) reading comprehension. Further, to understand reading problems, the teacher has to have an understanding of what developmental reading programs are all about and they also need to

understand normal growth in the ability to read. As mentioned by Janet Lerner in her book, “Children with Learning Disabilities” the sequence of stages that the child normally goes through in acquiring reading skills is as follows:

1) Development of reading readiness
2) The initial stage in learning how to read
3) Rapid development of reading skills
4) The stage of wide reading
5) Refinement of reading skills.

Development of reading readiness : this is a stage that begins from birth and continues through the beginning stages of reading. It involves the development of various skills that are a pre requisite to reading like (a) the skills of listening and speaking (b) motor development which involves the development of the speech muscles (c) auditory and visual discrimination where the child is able to distinguish one sound from another or one letter from another (d) concept and cognitive thinking and (e) the ability to attend to and concentrate on activities. The curriculum in nursery and kindergarten has traditionally been developed to build and sharpen these reading readiness skills.

The initial stage in learning how to read : The start of the formal reading programme generally occurs in grade one, however, depending on the learner, reading may begin earlier or later since each child develops at a different pace. Several methods are used for the initial stages of reading. Some children begin reading with the phonics method; some begin with a pre-primer, yet others begin with new materials such as linguistics or the programmed reading approach.

What typically happens at this stage is children begin to associate visual symbols with a particular sound. They learn to follow a line of print from left to right across a page. They develop a ‘sight’ vocabulary where ‘sight’ words are those words, which have to be recognised at sight, that is, without trying to sound out the word phonetically. Much of the reading at this stage is oral and children start understanding that reading is actually ‘talk written down’.

Rapid development of reading skills: This phase generally takes place when the child is in grade two and three. It is an extension of stage one along with the refinement and intensification of the skills acquired. A child, progressing normally with reading skills now rapidly develops advanced word recognition skills. The child also builds a substantial sight vocabulary and starts becoming proficient in using context clues. The technique of phonic and structural analysis is also established. The end of the third grade deals with the bulk of the phonics programme. This would imply that the child developing normally has learned phonic generalisations and uses them effectively by the end of the primary years. This is important since it lays the foundation for later reading development.

Stage of wide reading : At this stage, the basic skills acquired in the primary classes are improved and strengthened. A child progressing normally can now read for pleasure. Voluntary reading is at a maximum during this time. Children draw on books that fire their imagination and they share their enthusiasm of a good book with their peers. Soon there is a long line of children waiting to read a newly discovered ‘good book’.

It has been observed that during this period, children read books of a series like *The Famous Five* and *The Hardy Boys* or the wildly popular series on *Harry Potter*. A good reader however, still needs help in the development of skills required to read factual and non-fictional matter.

Refinement of reading : This is the final stage in the development of reading. This is also where the student develops advanced comprehension and study skills, an increase in reading rate and achieves flexibility in reading for different purposes. It is at this point, especially when longer periods of concentration are required that many children fail in reading. Students need continued guidance for effective reading growth through high school. In fact the development of advanced reading skills continues far beyond school and they continue to develop and get refined well into adult life.

Multisensory approaches to Reading

Very many remedial techniques involve multisensory stimulation. This is based on the premise that the stimulation of various sensory paths reinforces learning whereby, if one sensory path is weak, it gets supplemented by the other sensory paths.

Normally reading requires visual and auditory involvement that is the child sees and listens thus learning to read. If tactile and kinaesthetic stimulation is used along with the visual and auditory modes, it beings about a greater success rate in teaching a child now to read.

Tactile stimulation means using the sense of touch to learn (asking a child to ‘feel’ a letter with her fingers or recognise a letter/word that is ‘written’ on her back) and kinaesthetic stimulation would mean the

use of large muscles to remember a letter/word (writing the word giant sized on the blackboard or even in the air).

The methods that utilise several sensory channels are referred to as the **VAKT** (Visual – Auditory – Kinaesthetic – Tactile) method.

The steps involved in the VAKT method are : The child –

1) Sees the word
2) Hears the teacher say the word
3) Says the word himself
4) Hears himself say the word
5) Feels the muscle movement as he traces the word
6) Feels the surface under his fingertips as he traces the word
7) Sees his hand move as he traces the word
8) Hears himself say the word as he traces if **(Harris 1970)**

Sight Words

'Sight Words' or 'High Frequency' words are those words, which the reader is required to recognise without trying to sound them out. This is because they occur very frequently in the English language. Trying to sound out these words each time the reader encounters one, would affect his speed and hence his comprehension would get affected.

E.W. Dolch prepared a list of 220 words, which make up about 50 – 75 percent of the reading material that students encounter. He prepared this list in 1936 by going through several books for children.

This list is known as **Dolch Words** or **Sight Words** (ref: appendix)

CHAPTER 5

Remedial Techniques Used To Teach And Strengthen Reading Skills

We have looked at how reading skills were acquired. What follows here are techniques and methods that would help a child deal with a reading disability.

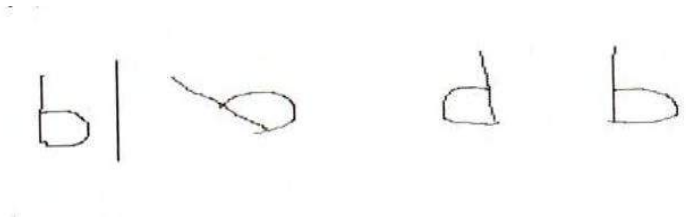
1. **Neurological Impress method (twin reading):**
   In this method, the student and the teacher sit side by side with the reading matter between them, visible to both.
   The teacher acquaints the student with the context of the reading matter and with the new words before reading starts.
   Both begin reading simultaneously. They read aloud, together and at a reasonably slow speed so that the student gets time to understand the passage as it unfolds.
   The voice of the teacher acts like a support for the student.
   As the time goes by, the teacher reduces the volume of her voice and eventually the student reads on his own.
   The voice of the teacher works as a learning prop for the student and the voice of the student reading the same material acts as an auditory feedback.
   (Demonstrated in the movie: 'Little Dreamers')

2. **Use of the finger/ruler to keep place**: For children who keep losing place while reading, using the finger to follow the text is a very effective way of keeping place. In doing so, it removes the extra pressure the child may feel in trying to keep place,

enabling him to concentrate more on the other aspects of reading.

3. **Motor control exercises:** Very often, children mispronounce words since they are simply not able to use their speech muscles with the required precision. As a part of the comprehensive motor control programme the child should be given exercises to strengthen the speech muscles.

4. **Visual perceptual exercises**: When a pupil reads 'saw' for 'was' or 'form' for 'from', it is usually due to a difficulty in visual perception. In such cases it is appropriate to use exercises that strengthen visual perception.
   Some such exercises are
   (a) Finding the hidden word in the word maze.
   (b) Picking out the figure/word that matches the one in the margin. (was : saw wsa aws was)
   (Demonstrated in the movie: 'Little Dreamers.')
   (c) Doing jigsaw puzzles.
   (d) Finding the hidden object.



(example of exercise 4b)

5. **Multi sensory exercises**: These techniques involve the use of more than one sensory channel to impart learning. As discussed in the previous chapter, the **VAKT** method is a very effective way of teaching a child how to read or spell especially when the student has to learn sight words.
   Another way of teaching a child to recognize alphabets or words is using sandpaper letters. Over here, the lower case alphabets are cut out on sandpaper. The rough side is the side up. The letters can be painted over taking care to make sure that confusing letters are distinctly different in colour. For example 'b' is painted red, 'd' is painted blue and 'p' is painted yellow. A word is spelt on the table surface using these letters. The child feels each letter and then says it aloud. This can also be turned into a game where a student is blindfolded and is asked to feel the letters laid out in front of him. He then has to guess the word. After he guesses the word, the child then removes the blindfold and looks at the word in front of him. *(Demonstrated in the movie: 'Little Dreamers')*

6. **Tracking:** One of the skills required for reading is 'tracking'. Tracking is the technique whereby the eye movement of the reader is from left to right for the English language. The movement of the eye has to be smooth and steady to enable the reader to read comfortable and comprehend whatever he reads.

Besides these specific techniques there are some other tips to keep in mind when working on a reading difficulty:

- Ask the student to read slowly

- Make sure that the student is familiar with the content
- Let the student read a short passage unless he insists otherwise
- Correct the child only at the end of a sentence or paragraph
- Do not insist on expression while reading

Instructional Games:

- **Spin the Vowel** – a circular spinner with a rotating arrow at the centre is made from cardboard. Five equal sections are marked off on the cardboard. Each section has a vowel written in it. Elongated cardboard cards are created, each containing about eight words of three, four or five letters with the vowels deleted. These cards could be laminated so that pencil marks can be removed and the cards can be reused. Every player is given a card.

  The first player spins the spinner and he must try to use the vowel that the arrow stops on, to complete a word on his card. The word must make sense. If the player cannot make a word, he loses the turn. The winner is the player who completes all the words on his card.

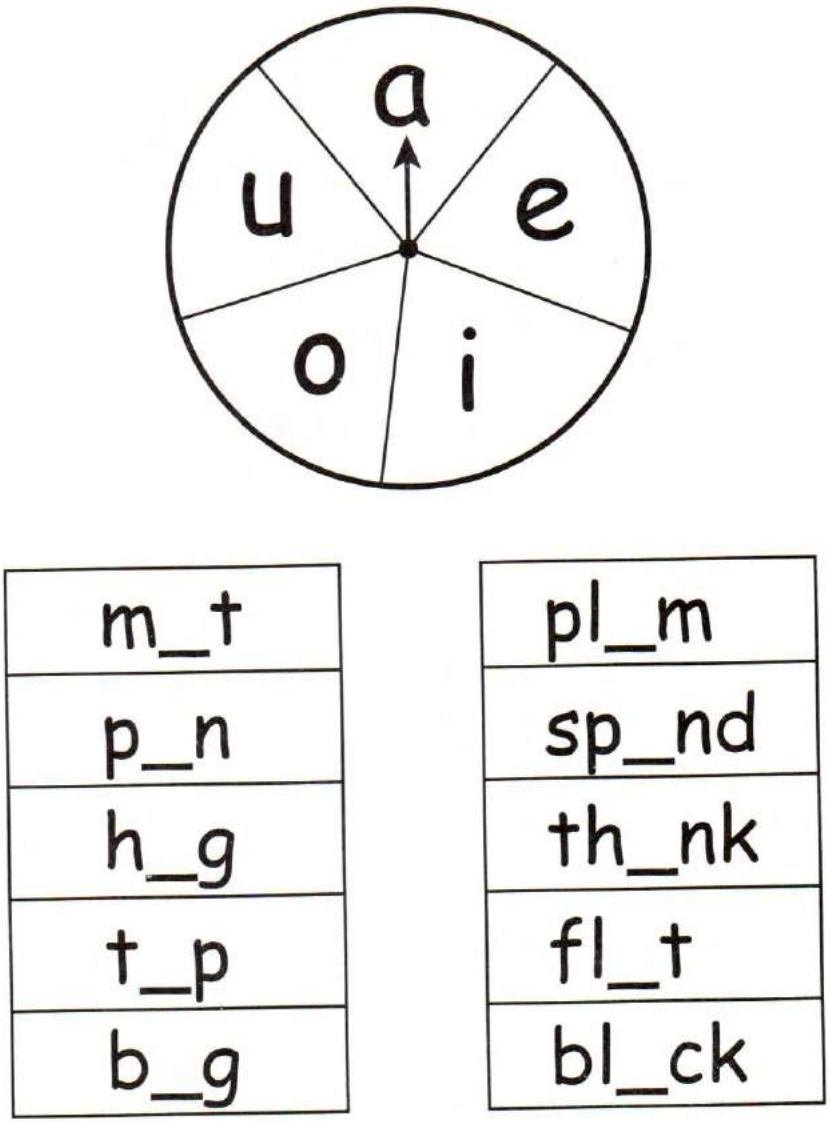


Fig.1: Spin the Vowel

- **Broken Blends** – Cards are made where each card is cut into half. The first part contains a blend and the second part contains the remainder of the word. The deck of blend cards and the deck of half word cards are shuffled and placed face down. The player picks up the top card of each pile and sees if they make a word. If they make a word and the player reads

the word correctly, he proceeds to pick up the next pair. If the pair that is picked up does not form a word then those cards are put back into the piles and the turn moves to the next player. If the pair that is picked up makes a word and the player reads it incorrectly, the pair of cards is discarded and the turn moves on.

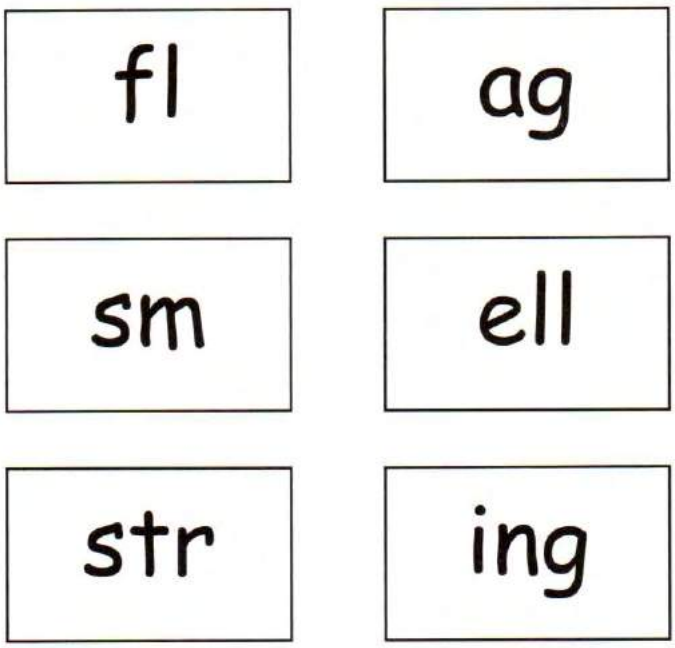


Fig.2: Broken Blends

Word Dominoes – Cards are made where there is a midline drawn through the breadth of the card, dividing the card in two like a domino. Each side has one word written in a manner such that the word faces outside, towards the small edge of the card. The words used are from the sight word list (Appendix). Each player receives five cards. The first player puts his card down on the table. The second player can put down a card only if he has an identical word to match one of the words already on the table. The turn passes on.

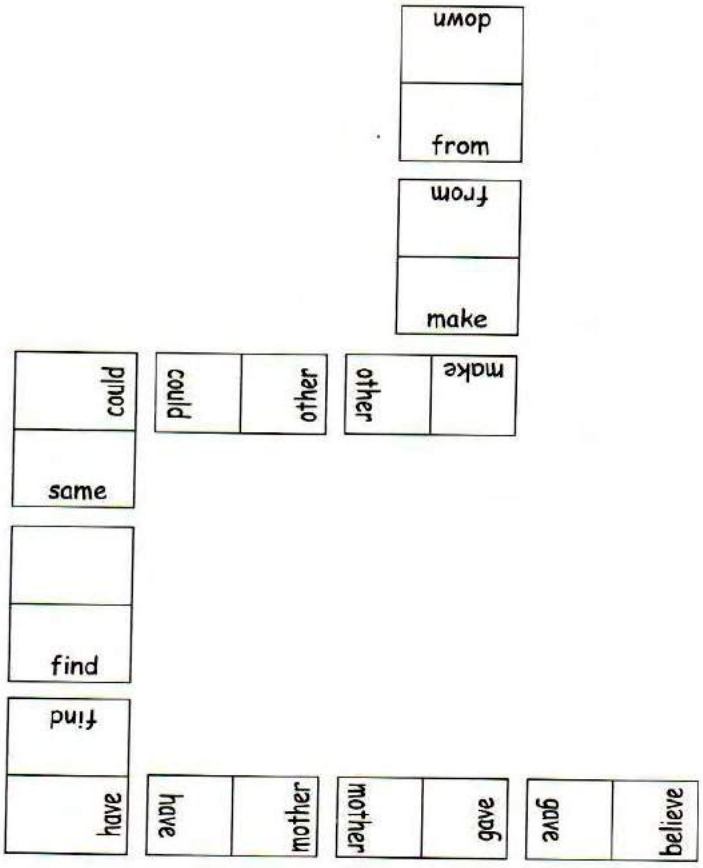


Fig.3: Word Dominoes

Kime and Waine (2005) emphasize the necessity to ensure that techniques developed to support pupils who have learning disabilities become established as part of the routine in all of their lessons. Pupils will not improve their reading or writing performance if attention is given to these skills only in specific lessons aimed at developing these skills. They need to be integrated into all lessons, which make demands upon pupils' reading and writing.

CHAPTER 6

Phonics And Phonological Acquisition

Phonological awareness is a term that is frequently used in reading programmes and is quite often confused with ‘phonics’. The two terms mean different things.

Acquisition of speech

‘Babbling’ in an infant is a sign of the earliest attempts towards acquisition of speech. As the infant grows, he begins associating a meaning to a particular sound. Gradually, the sounds get refined into intelligible words. The child then begins to associate a particular sound with a definite symbol. This is where the spoken language begins to translate into the written language.

This movement starts by an initial ‘one is to one’ relationship where one phoneme (sound) relates to one grapheme (letter). It then gradually builds up to encompass all the possible combinations of letters required to produce the sounds in the language being learnt. In the case of the English language, 26 letters combine to give 44 phonemes.

The ***awareness*** that the sounds of the spoken language can be put together to make words is called ***‘phonological awareness’.*** The acquisition of this skill is said to take place approximately five and a half years of age. ***‘Phonics’*** is the awareness that there is a predictable relationship between phonemes and graphemes.

Phonological or phonemic awareness also refers to being able to identify where that sound occurs in the word (i.e. beginning, middle or end). One

of the major components that determine a child's readiness to learn to read is his or her understanding of how the sounds work together. Children learn that words are made up of individual phonemes, which help to make one word distinguishable from another word.

Consider the words **cat, sat**, and **rat**. These words have the same phoneme sound 'at' at the end but because of the initial phoneme difference, the listener would interpret very different meanings for each word. Phonemic awareness is this ability to take words apart, and put them back together again, and also to change them to something else. It is a skill that lays the very foundation of reading.

Phonemic Awareness is not only helpful in decoding new words, but is also a critical skill for making educated guesses when spelling unknown words.

The main reason for failure in children on the threshold of reading is when the child has been unable to learn all consonant and vowel sounds and also does not know how to blend these sounds when reading. Consonant and vowel sounds need to be memorized first and memorization of any information requires repetition.

This is where children who do not have satisfactory phonemic awareness skills will not only suffer slower reading progress, but will become severely frustrated when trying to spell words while writing sentences paragraphs or stories.

Before embarking on a phonics program, the teacher must be aware of the correct sounds of the letters of the alphabet. The sounds stressed in a phonics program are as follows:

Vowel Sounds:

Short sounds – **a** as in apple, **e** as in egg, **i** as in ink, **o** as in orange and **u** as in umbrella.

Long sounds – **a** as in able or cake, **e** as in each or Pete, **i** as in ice or kite, **o** as in old or poke, **u** as in uniform or tube.

The letter **w** is used as a vowel on word endings and as consonant at the beginning of a word.

The letter **y** is used as a consonant at the beginning of a word and as a vowel in any other position.

Consonant sounds – **b** as in bat, **c** as in cat, **d** as in dog, **f** as in fan, **g** as in gum, **h** as in hen, **j** as in jug, **k** as in king, **l** as in lamp, **m** as in man, **n** as in net, **p** as in pan, **q** as in queen, **r** as in rat, **s** as in six, **t** as in top, **v** as in van, **w** as in wagon, **x** as in Xerox, **y** as in yellow and z as in zebra.

These consonants have two or more sounds:

C as in cat and **c** as cell;

G as in gate and **g** as in gem;

S as in six and **s** as in is;

X as in Xerox, **x** as in exist and **x** as in box.

The sound of **c** in cat is called a hard sound. The sound of **c** in cell is a soft sound. The letter **c** takes a soft sound when it is immediately followed by letters **e**, **i** and **y** as in **cell**, **city** and **cycle**. At all other times, **c** keeps the hard sound as in **cat**.

Similarly, the sound of **g** in gift is a hard sound. The sound of **g** in **gem** is a soft sound. The letter **g** takes a soft sound when it is followed by **e**, **i** and **y** as in **gem, ginger** and **gypsy**. At all other times, **g** keeps the hard sound as in **gift**.

The easiest sounds to learn are the alphabets that have the sound inherent in their names. These alphabets are ; **b – d – k – p – t** and a programme

in phonics would ideally begin with the introduction to the sounds of these letters.

The most difficult sounds to learn are**: h – l – m – n – q – r – w** (at the beginning) and **y** (at the beginning of words).

It will take a little more practice for a child to learn these sounds in comparison to other consonant sounds; so special attention needs to be given to these letters.

List of consonant blends:

Beginning blends –

Bl as in black; **br** as in brown; **cl** as in class; **cr** as in crab; **dr** as in drop; **dw** as in dwell; **fl** as in flat; **fr** as in from; **gl** as in glass; **gr** as in grass; **pl** as in plan; **pr** as in pram; **sc** as in score; **sk** as in skin; **sl** as in slip; **sm** as in smell; **sn** as in snake; **sp** as in spin; **st** as in star; **sw** as in swell; **tr** as in tree; **tw** as in twin; **wr** as in wrench; **sch** as in school; **scr** as in scrape; **shr** as in shrink; **spl** as in splash; **spr** as in spring; **squ** as in squash; **str** as in string; **thr** as in three.

End blends -

Ld as in wild, **mp** as in lamp; **nd** as in sand; **nt** as in went; **rk** as in work; **sk** as in desk.

Consonant Digraphs –

Sh as in shoe**; ch** as in church; **th** (voiced) as in the; **th** (voiceless) as in thumb; **wh** as in wheel; **ph** as in phone; **gh** as in drought. The last two sounds could he introduced at the grade three level.

The teaching sequence that could be followed in a phonics programme is:

- Consonant sounds
- Vowel sounds – short
- Consonant blends and digraphs

- Vowel sounds – long
- Hard soft **c** and **g**

Phonemic awareness leads to good reading skills and its presence or absence can serve, as an indicator as to how reading skills in that particular child will develop.

CHAPTER 7

Spelling

The English language lacks a one to one correspondence between the written letter and the sounds used to form words therein. Therefore spelling is not an easy task even for children who do not have a difficulty in learning. Spelling a word is much more difficult than reading a word.

Encoding and Decoding Tasks

Recognizing the written word is a decoding task where the reader sees the symbols (alphabets) assigns the sound he thinks it represents and puts it together to form the word. In a reading situation, there are many clues to aid the reader in word recognition including context clues, phonics, structural analysis and configuration. While reading, a word read wrongly may not affect the context of the sentence or paragraph being read but while spelling, one wrong letter turns the word into misspelled word.

The difference between reading and spelling is the difference between decoding and encoding. While reading is a decoding task, spelling is an encoding task where the writer has to encode the sounds required to make up the word by using the appropriate letters. Also, the opportunity to draw upon peripheral clues is greatly reduced. Therefore, spelling being a very precise activity, is much more difficult than reading.
Many children who are poor in the ability to reproduce words in spelling are able to comfortably recognize them in reading. However, the child who is poor in reading is almost always poor in spelling too.

Even though there are numerous exceptions to the spelling rules of the English language, there is a reasonably structured method that can be used to teach spellings.

Visual Sequential Memory

The ability to spell also appears to be related to visual sequential memory. If a child has a difficulty in remembering the letters and the order in which they appear in a word, he will be poor in spelling.

It has been found that many techniques, which have been successful in teaching spelling, have really been ways to strengthen visual sequential memory.

One such technique developed by Fernald and called *The Fernald Method (Fernald 1943)* was a tracing technique used to teach spelling. It reinforced the visual image of the word by using the tactile and kinaesthetic methods. The steps in the Fernald method are as follows:

1. The child is encouraged to select a word that he wants to learn.
2. The teacher writes the word on a 4 x 10 inch card as the child watches. The teacher says the word while writing.
3. The child traces the word saying it several times and then writes the word on a separate piece of paper.
4. The word is then written from memory without looking. If the word is incorrect, steps 2 and 3 are repeated. If the word is correct, it is put in a file box.

A more traditional approach to spelling programs is based on lists made of words that are frequently used. A relatively small number of words do most of the work when dealing with this approach. The following is an estimate of needed spelling words as given by Rinsland (1945):

- 100 words make up more than 60% of elementary children's writing.

- 500 words make up more than 82% of elementary children's writing.
- 1000 words make up more than 895 of elementary children's writing.
- 2000 words make up more than 95% of elementary children's writing.

Specific spelling errors:

Spelling errors due to auditory channel deficits–

1. Substitutes **t** for **d**, **f** for **v**, **sh** for **ch** (*auditory discrimination or cultural)*
2. Does not hear subtle differences between sounds - **dock** for **talk** *(auditory discrimination)*
3. Leaves vowels out of two syllable words – **plsh** for **polish**(*auditory discrimination)*
4. Discerns the beginning and ending of words but not the middle of the word, which may be missing, or spelt wrong – **hand** spelt as **hd.**
5. Omission of the second letter in blends **– fled** as **fed.**
6. Uses a synonym – **house** for **home** (*auditory visual association*).
7. Omits word endings such as –**ed**, -**s**, and –**ing**(*auditory discrimination)*
8. Guesses randomly at the word with little or no relationship between what is heard and what is written – **fox** for **dog***(auditory visual associative memory).*

If the difficulty is in auditory perception, the spellings are generally non-phonetic since the students lack phonetic skills.

Spelling errors due to visual channel deficits –

1. Visualizes the beginning and ending of words but omits the middle of the word –**hapy** for **happy** *(visual memory).*
2. Spells using correct letters but in the wrong sequence –**teh** for **the**, **form** for **from** *(visual memory sequence)*
3. Reverses letters or words – **b** for **d, on** for **no**, **was** for ***saw*** *(visual memory sequence).*
4. Inverts letters – **u** for **n, m** for **w, b** for **p***(usually visual memory but could be visual discrimination or spatial).*
5. Mixing up upper and lower case letters – **haD** or **taBle** (*visual memory)*
6. Spelling non-phonetic words in a phonetic manner **(skool for school)**

Since the difficulty here is in visual perception, the spellings although incorrect tend to be phonetic therefore recognizable in most cases.

The English language is fairly inconsistent in its relationship between phonemes (speech sounds) and graphemes (written representation of speech sounds). While there are 26 letters in the alphabet, there are more than 40 speech sounds. This accounts for the difference between the way the word is spelt and the way the word is pronounced. On the other hand, languages like Hindi and Marathi are quite consistent in their relationship between phonemes and graphemes.

Earlier, one had seen the kind of difficulties that existed among children weak in spellings and also the difficulty with learning skills that resulted in a spelling problem. These were found to largely be visual and auditory perceptual difficulties.

Spelling competencies

Stephens (1977) noted that there are nine spelling competencies that enable a child to be an effective speller. Listed below are the most relevant ones –

1. **Auditory Discrimination** : It is the ability to discriminate one sound from the other and the ability to use the correct pronunciation of the word.
2. **Consonants and their sounds** : Knowledge of consonants and their sounds in the initial, final and medial positions in words and in consonant blends e.g. the sound of **'b'** in '**bat'** (initial), **'rub'** (final) and **'rubber'** (medial) and in consonant blends such as '**bl**' in '**black'.**
3. **Phonograms** : the ability to identify phonograms in initial, final and medial positions in words and the ability to identify word phonograms. A phonogram is either one letter or a set combination of letters, which represent one or more single voiced sounds.

   There are 71 phonograms –

   A b c d e f g h i j k l m n o p q r s t u v w x y z
   sh ee th ay ai ow ou aw ui oy oi oo ch ng ea
   ar ck ed or wh oa oe er ir ur wor ear our ey ei
   eigh ie igh kn gn wr ph dge tch ti si ci ough gn.
4. **Plurals –** The ability to form plurals by adding relevant endings like **'s', 'es'**, changing **'f'** to **'v'** and knowledge of words that are exceptions.

5. **Syllabication:**- the ability to divide a word into its basic units of sound which is the syllable e.g. **to/mor/row.**

6. **Structural elements**: Knowledge of the basic or root word and the recognition of prefixes and suffixes as in **fast** (root) and **faster** (suffix – er) and **spell** (root) and **misspell** (mis- prefix).

7. **Silent (or 'Magic') E**: Knowledge of single syllable words that end in **'e'**

8. **Ending changes** :The skill of changing the ending of a word that ends in final **e**, final **y** and final consonant when changing the word to plural or adding a suffix.

9. **Vowel digraphs and diphthongs**: The ability to spell a word where a single sound is formed by a vowel digraph (**ai** in **pain**, **ea** in **head**, **ay** in **say** or a diphthong forms a blend (**oi** in **boil**, **ow** in **row**, **ou** in **spout**).

A remedial programme for spelling would involve exercises that strengthen the relevant skills in the student. Some such exercises are listed below:

Auditory discrimination:

- Matching environmental sounds to pictures
- Matching sounds of musical instruments to pictures
- Matching a picture to the word heard
- Identifying whether 2 real words sound the same or different
- Identifying which sound in a word has been changed (Gross discrimination)
- Identifying which sound in a word has been changed (Fine discrimination)

- Identifying which sound in a “non-word” has been changed
- Identifying direction of sound heard

Memory/Sequential tasks

1) Remembering items previously shown
2) Sequencing coloured beads on a string
3) Remembering the events of the day in order of happening
4) Remembering a sequence of food items from a shopping list
5) Completing sequences of numbers, letters
6) Remembering a sequence of items by description of function
7) Sequencing words, sentences
8) Answering questions about what came first, second or last

Spelling Exercises:

- Completing 3 letter words (1 letter missing)
- Completing 4 letter words (2 letters missing)
- Selecting the correct letter to complete a longer word
- Solving 3 letter anagrams to match a picture
- Completing a word by inserting an increasing number of letters
- Solving 3 letter word anagrams to complete a phrase
- Identifying the correctly spelt word
- Selecting the correct letters to form a longer word
- Identifying the incorrect letter in a word
- Rearranging 3 syllables to form a word
- Selecting the correct letters to form a more complex word

In sensitising a child to sounds in words, it sometimes helps if the suffix is removed. The ‘**en**’ sound in **‘suddenly’** is much more distinct after the

suffix '**ly'** is removed. The sound **'d'** in **stands**' becomes evident when the **'s'** at the end of the word is removed.

The **'n**' in '**happened**' is clearly heard and felt by the tip of the tongue if the suffix '**ed**' is removed.

Exercises

Here are some more exercises that can be used to reinforce spellings:

1) **The use of sandpaper letters** – as explained in an earlier chapter on reading, sandpaper letters reinforce the spelling of a word using the visual and tactile sensory paths.
2) **Skywriting/writing on a huge blackboard** – the word to be learnt is written in the air or on the blackboard using the whole arm to write out giant sized letters. The large muscle movement retains the memory of the movement and thus helps in retaining the memory of the word.
   (Technique demonstrated in the movie: 'Little Dreamers'.)
3) **Writing on the back of the student** – This is an excellent exercise which can be used as a game – the Teacher 'writes' out the word to be learnt on the back of the student. The student feels it, letter by letter and tries to say the word. This is repeated till the student gets the word right and then he can choose a word to write out on the back of the teacher, for the teacher to guess.
4) **Tapping out syllables** – the teacher calls out a word. If the word has two syllables like in 'letter', the student taps the desk twice. If the word has three syllables like in 'tomorrow', the student taps the desk three times.

5) **Word families** – Spellings taught as families are much easier to remember e.g. the 'ai' family – r**ai**n, p**ai**n, m**ai**n, tr**ai**n, etc.

The rules of Spelling

The English language is governed by several rules to which there are always exceptions, often many of them. Yet, these rules are a reasonably good guide to 70% of the English language. What follows here is a list of spelling rules with examples.

Rule 1

Short vowel sounds – the short vowel sounds are as follows:

A as in ***apple***

E as in ***egg***

I as in ***igloo***

O as in ***orange***

U as in ***umbrella***

In the above examples, the vowels are in the initial position. In the following examples, the vowels are in the medial position:

A as in ***cat***

E as n ***leg***

I as in ***pin***

O as in ***top***

U as in ***sun***

Rule 2

Long vowels & silent E – "Silent E makes the preceding vowel say its name if there is only one consonant between them"

This is an important rule, sometimes called the 'magic E' rule. The following examples will illustrate the rule:

Mat – mate

Fat – fate

Hat – hate

Rip – ripe

Bit – bite

Hop – hope

Cod – code

Cub – cube

Tub – tube

Rule 3

Double the consonant when it comes after a SHORT vowel. This is a general rule that serves as a guide to words of more than one syllable. Consider the following: ***diner/dinner; hoping/hopping; taping/tapping.*** Since a short vowel needs support, the consonant after the vowel is doubled. Interestingly enough, **K** is not doubled. Instead of '**KK**' what is used is '**CK'**. Compare **baking/backing.**

Rule 4

E, I and **Y** make **C** and **G** say their soft sounds. Consider **cat, cup, corn** and **gas,gun, got**

In these words, both **C** and **G** use their hard sounds.

Now consider **cell, city, cycle** and **gem, ginger, gym**

In these words, **C** and **G** use their soft sounds because in each word **C** or **G** is followed by either **E I** or **Y.**

Rule 5

When **all, full** and **till** are joined to a word or syllable, they drop an **L**.

Consider the word **all**:

All + so = **also**

All + ways = **always**

All + most = **almost**

All + ready = **already**

Similarly with **full :**

Hope + **full – hopeful**

Shame + **full = shameful**

Joy + **full = joyful**

With **till**: un + **till = until**

Rule 6

How does one decide whether to use **K,CK** or **C?**

Use **K** by itself if hard **K** is followed by **E** or **I** as in **keep, lake, king, bike**

Use **CK** after a short vowel as in **sack, neck, sick, duck.**

Use **C** if followed by a consonant **: clan, crab, act**

Prefix and Suffix

Several words are constructed using a prefix, stem and suffix. The letters fixed at the beginning of the root word are called the prefix and the letters fixed at the end of the root word are called the suffix.

Consider the word **'returning'**

Stem **: turn**

Prefix **: re** hence **return**

Suffix :**ing** hence **returning**

How does one decide whether to choose **ED, D** or **T** at the end of a verb when it is in the past tense?

Rule 7

If a word makes sense without the suffix, the ending must be **ED**.

Consider: **walk + ed – walked**

Climb + ed = climbed

If the word ends in E, then the addition of **E** makes an **ED** ending.

Consider : **shape + d = shaped**

Store + d = stored

If a word does not make sense without the suffix, add **D** or **T**, whichever sound is heard.

Consider : **hel – d**

Kep – t

Foun – d

Ben – t

What is a syllable?

A syllable is a push of breath. **Cat, sit** and **win** are words that have a single syllable. The word '**hunter'** has two syllables (**hun/ter)** and the word **'tomorrow'** has three syllables **(to/mor/row).**

What is the similarity between **cat, sit** and **win?**

Each word has **one** syllable, **one** consonant at the end of the word and **one** vowel before that consonant.

Consider the word **sit.**

Sit+ing becomes **sitting.** The letter **t,** which is the last letter, has doubled.

Similarly we have

Win + er = winner

Sad + est = saddest

But

Sad + ness = sadness While **d** doubled in **saddest**, it did not double in **sadness.**

That is because the suffix in **saddest (-est**) begins with a vowel while the suffix in **sadness (-ness**) begins with a consonant.

Similarly we have

Redder but **redness**

Fattest but **fatness**

Shipping but **shipment.**

There are a few rules among many others, which serve as a guide to spelling in English.

CHAPTER 8

Cognitive functions And Dysfunctions – How Do They Interfere with Learning

What is a 'Cognitive Function'? Cognition includes the ability to think, reason and remember therefore a cognitive function is an intellectual process that would enable these abilities. It is a method that results in the understanding and perception of data available to the individual. It is a function by which information is processed.

Learning disabilities can manifest themselves in several different ways, impacting different areas of the life of a learner. The maximum concern is over those areas that involve basic academic skills.

When we talk of cognition and cognitive processes, four steps are addressed (Kephart, 1971):

1. Input
2. Integration
3. Output
4. Feedback

Input is where the student receives data through sensory stimulation. The child sees and listens to information. This data can also be transmitted through tactile and kinaesthetic means, which involve the sense of touch and movement. The sense of taste and smell also contribute to the learning of the child. The fusion of these sensory channels for learning is often referred to as a multi-sensory approach to teaching (Sheffield 1991, Ott 1997). The manner in which the input is organized is a major factor in determining the efficiency with which the information

(input) will be received. Data that is presented in a structured, logical manner which is recognizable by the learner, is much easier to process than data presented in a confusing, haphazard manner.

A typical example would be where a student is reading about the planet Mars from a chapter on the solar system in his science textbook. The sensory mode being used is visual. The letters and words in the text are the stimulus and the sensory channel receiving the input, is through the eye.

Integration: Integration involves two basic processes – the integration of simultaneous inputs and the integration of new information with past and present experiences.

This is where the sensory data received is processed in the brain and perception and integration of data takes place. The data is integrated with other relevant pieces of information to give the student a comprehensive understanding of the material received.

Coming back to the example of the student reading about the planet Mars, in order to completely understand the information about the planet Mars, he also needs to be able to integrate that information with the rest of the facts he knows on the solar system, in order to get the right perspective.

Output: This refers to the student's ability to reproduce the information he has taken in. This can be done orally through discussions and lectures or in a written form, through assignments and tests.

The student studying about Mars is now ready to speak on or write an essay on the planet. The output is through the muscular movement that enables him to speak about or write what he has learnt.

Feedback: As the student shares what he has learnt, he may modify what needs to be modified in this procedure to make his output more effective. He may add extra information to highlight the main points, if the student finds that his writing instrument is slippery and uncomfortable while writing the essay, he will change the writing instrument.

Effective movement through these four steps that form the basis of 'recognition' is dependent upon the smooth functioning of cognitive learning functions of the student which are:
1) attention 2) perception 3) language processing 4) memory.

A learning difficulty occurs when one or more of these cognitive functions are impaired. This kind of impairment can compromise achievement in the learning process of the child.
A difficulty in the cognitive function of attention could result in an **attention deficit disorder**. If the difficulty were in the area of perception (generally visual and auditory) it would result in **a perceptual processing disorder.**
A difficulty in the area of language processing would lead to a **language processing disorder.**
A difficulty with memory would lead to a **deficit in memory.**

Attention:

Attention is the ability to select and stay tuned to the relevant stimuli required for performing the task at hand. For example, a student is able to listen and understand the teacher explaining a topic in Geography in class even though there is a lot of noise coming from children playing games on the field outside.

To 'pay attention', the learner requires to be able to focus his attention between what is being said in class and memories of previously received relevant information. For example, while listening to the lecture on planets in Geography, the student would recall that he had read material on the planet Mars. The new information now adds to what he has previously learnt and gives him a broader perspective on the subject.

A deficit in the ability to pay attention would involve a difficulty in focusing and maintaining a level of attention required for adequate comprehension and also involves the ability to refocus once distracted.This condition is known as an **Attention Deficit Disorder (ADD).** If hyperactivity is present along with distraction, the condition is called Attention Deficit Hyperactivity Disorder (ADHD), though some caution needs to be exercised before applying this term as it is a condition which requires careful diagnosis and has often been misinterpreted by teachers and others, leading to inappropriate labelling and a lowering of expectation (Wodrich 2000).

Characteristics of Attention Deficit Disorder:

- **A Short Attention Span** – the learner is distracted and restless and his thoughts may wander.
- **Problems in Focussing** – the student encounters a difficulty in selecting the data, which is important and relevant among a whole plethora of stimuli.
- **Problems with Listening** – the student finds it difficult to remember what is said especially when sentences are long.
- **Problems with Reading and Writing** – the student is able to comprehend short passages but not long ones. Due to the inability to stay focused, the reading rate slows down. Written work is disorganized and fraught with errors in spelling and punctuation. The child has a tendency to begin with a certain thought and end somewhere else.
- **Control Issues** – the student has problems with organizing time, notes and his own personal space. He behaves in a very impulsive manner and levels of frustration are very high.

Perception and Perpetual Processing Disorder:

Perception is the ability to collect and understand data through visual and auditory channels. This ability allows the learner to see and hear things and then put the data into context with what has been previously learned. It also involves the ability to filter out irrelevant from relevant data, which in turn creates a comprehensive understanding of the subject matter. Perceptual processing also involves sequencing. This is an important aspect of cognition since it involves seeing and hearing letters/numbers/words/sentences in their proper order. A disorder in this

area would mean that though sensory organs are all intact the information to the brain gets scrambled. The child then sees or hears things in a disorderly fashion. Letters, numbers and words seem to behave in a disorganized fashion jumping out, reversing or turning upside down for example '**lion'** may look like **'loin'**, '**out'** may seem to be **'ont'.**

Characteristics of a Perceptual Processing Disorder:

1. Sound sequences may be heard out of order for example 'animal' is heard as 'aminal'.
2. The pronunciation of multi syllabic words is difficult. The syllables might be out of sequence (**'tomorrow' as 'toromow')**or the word may be mispronounced due to faulty auditory discrimination **('bat'** heard as **'mat').**
3. Word attack skills may be poor
4. Visual sequencing may be a difficulty during reading or writing, which would result in faulty reading (**'from'** read as **'form'**) and wrong spelling (**'what'** spelt as '**waht'**)
5. Page organization could be a problem. Words may be crowded together or too far spaced, off the line, etc.
6. Copying from the blackboard may be difficult. Work is often unfinished. The tendency to lose place on the blackboard hampers the pace of the child.
7. Handwriting is poor.
8. Numbers may be written out of sequence which causes computational errors.
9. Numbers may be written in a misaligned manner that again leads to calculation errors especially where alignment is

important but inconsistent like in long multiplication and division.

CHAPTER 9

Language Processing disorders

And Memory Deficits

Language Processing:

Language processing is required for the tasks of reading, writing and math. It is also essential in areas such as abstract reasoning, problem solving and concept formation.

The learner necessarily has to be familiar with symbols – linguistic for language and numeric for math. Symbols represent sounds. A combination of sounds represents a word. A set of words forms a sentence. Several sentences put together represent an idea, which can further be manipulated internally to understand concepts or solve problems.

A disorder in language processing would show up as a deficit in the acquisition and manipulation of reading, writing and math skills. A difficulty in understanding the information acquired, is because of a disorder with central processing. If there is a delay in auditory processing, the condition is referred to as a Central Auditory Processing Disorder (commonly called 'CAPD').

To understand a central auditory processing disorder (CAPD), consider the student who was sitting in a noisy classroom when the teacher announced, "Children, all of you settle down quietly and stand in line to leave". The student might have heard something like, "Children, olive you, sit on down quietly nstandwin line tuleave". The student gets confused between the seemingly opposite instructions of 'sit' and 'stand'. H looks around and figures the best thing is to do what everyone else is doing. This is the student who appears to the teacher as slow and hesitant,

as he looks around, packing his bag and generally wondering what to do next.

CAPD refers to problems with discrimination, identification and retention of sounds after the ears have 'heard' the sounds. A person who is unable to attach meaning to the sounds heard probably has a language processing disorder.

Students with a Language Processing Disorder do not show any flexibility in problem solving. They stick to definitions and solutions as explained to them and their attempts at problem solving is only through what they have been directly taught. For example, a student is taught that **2+2=4** and is then told **4+5=9**. It may not occur to the student that based on the earlier information; **2+2+2+3** is also equal to 9. He reads about the concept of division in Math. He is shown the working of such sums step by step. Yet he does not understand how to divide. Eventually he may be able to do a sum that is identical to the example shown to him but if there is a slight deviation from the regular format of presentation, he is unable to do it. This is because he has not been able to process everything he has read and heard, into an understandable format.

Such a disorder may result in concrete thinking with a tendency to be repetitive. This repetition is known as "Perseveration".

Children with a language processing disorder may also have interpersonal problems since there may be a lack of awareness of fine nuances in one's own behaviour and that of others.

Characteristics of Language Processing Disorders:

1. Problems in sounding out words
2. Slow rate of reading
3. Difficulty in comprehension
4. Improper punctuation
5. Unusual signature

6. Sentence length may vary from being very short to long and confusing.
7. Problems with organization of thought
8. Difficulty in expressing thoughts in writing
9. Does not understand metaphors and puns in language
10. Interprets literally
11. Difficulty with Math concepts
12. Poor calculation and reasoning skills
13. Poor sense of humour
14. Trouble integrating new data with previous learning
15. Unable to understand non-verbal information like body language such as facial expressions and gestures.

Memory:

Memory is where we receive, store and recover information. Memory can be divided into two kinds:

1. Short-term memory
2. Long-term memory

Short-term memory which is a component of working memory, stores small amounts of information for a short time like remembering a telephone number or remembering the names of items to be bought from the grocery store.

Long-term memory is where large amounts of information are stored for long periods of time perhaps permanently. This is like remembering nursery rhymes learnt as a child or recalling multiplication tables.

Inputs for short-term memory comes from multisensory avenues like sight, hearing, smell and touch. However, in relation to academics, it is the visual and auditory channels that play the most important role like remembering something that has been read or heard.

Short-term memory turns into long-term memory when the data is reinforced by systematic over learning (like repeating the multiplication tables once every day) or by supplementing the short-term data with an emotional significance. For example, the details of graduation day are never forgotten since graduation day has a strong emotional significance. To recall data from the long-term memory bank, the student has to be able to go through a process called imaging.

In the visual mode, when letters, words or experiences are recalled, an 'image' is seen in the mind. This is called revisualization. When the stimulus is auditory, it again creates an image in the mind. This is the process that works when a student is asked to repeat a number backward e.g. 473 to be called as 374. The student hears the number, visualizes it in his mind and calls out the numbers in the reverse order, picking off the last number first and calling the numbers out one by one in the reverse order.

Characteristics of deficits in memory:

1. Difficulty in taking notes during lectures. This would be short-term – auditory.
2. Difficulty in using the right word to indicate an object, situation or emotion. This is known as 'Dysnomia' and is a long-term memory deficit.
3. Poor word attack skills, which is a long-term memory deficit.
4. Very slow but accurate worker. This may be due to a difficulty in retrieving information from the long-term memory cache.
5. Extreme difficulty in learning a second language.
6. Spelling are inconsistent, even in the errors made.
7. Difficulty in remembering basic math skills and this makes further learning in math problematic.

CHAPTER 10

Secondary Problems –Behavioural And Emotional

Children with learning disabilities generally suffer from low self-esteem. Even a child as young as six years of age; who has a learning disability is aware that ‘something is wrong’. If help is not received, the difficulties in learning increase and the feeling of being different gets stronger. The child instinctively deals with the difficulty as long as he can manage but at some point, he seems to succumb to pressure around him. The need to be accepted, as ‘one of the crowd’ is so strong that a failure to do so causes the child to either withdraw into a shell or become a class clown.

Maturation:

The chief component of this theory is that each child develops at his or her own pace, within the normal framework of the developmental process. Different abilities mature at different times and this varies from individual to individual. In a child with learning disabilities, the important factor is the time at which these abilities mature rather than an actual difference in abilities when compared to children without learning disabilities. An attempt to speed up the maturational process in a child who is not ready can actually create problems in learning (Ames 1968).

During the development of a child, there are degrees of ‘readiness’ in acquiring skills, which simply means that the learner is now ready and mature enough to acquire and process the information that will lead him to develop a particular skill.

In a child on the threshold of reading, one of the skills he needs to have is the ability to associate sound and symbol. The readiness skill for this would be the ability to distinguish one sound from another.
Consider the child who has just been sensitised to the different sounds made by letters of the alphabet. If this student is suddenly exposed to non-phonetic words on the basis of their letters, it will create confusion in the mind of the child and the acquisition of reading skills may get delayed until he is able to resolve the confusion created or the child may develop an aversion to reading.
A stepwise process in teaching a child to read would be :

1. Sensitisation towards different sounds
2. Sound-symbol association
3. Sounding out and reading consonant-vowel-consonant words

Therefore, before acquiring any skill, it is very important that the child is ready to receive the information.
Piaget (as reported in Flavell 1963) explained the maturational stages of logical thinking and provided a schematic description of the development of the child. Whilst some of Piaget's theories have been challenged, his interpretation of child development is still important in informing us of the important stages through which a child passes to become an effective learner. All ages given are approximate.

Stage 1:
First two years of life – **The Sensorimotor Stage**
This is where the child learns by interacting with the physical environment using senses and movement.

By moving, touching and other forms of physical interaction, the child begins to understand the properties of space and time, of location, of permanence and causality.

Permanence is where the child realises that an object exists even though it is no longer in his field of vision. Causality is the relationship between cause and effect where the child begins to understand that certain actions of his would have a definite effect.

Stage 2:

Ages 2 to 7 -**The Preoperational Stage**

Over here, the child begins to think with symbols and starts making intuitive judgements about relationships. Language now becomes increasingly important. He begins to learn about the world around him and his thinking is dominated largely by perception.

Stage 3:

Ages 7 to 11 – **The Concrete Operational Stage**

Now, the child is able to understand relationships and can group entities together logically. He is able to perceive the consequences of actions.

He is able to organize his thoughts though his thoughts are shaped largely by previous experiences from which he may have learnt or understood using the senses.

Stage 4:

Age 11 onwards **– The Stage of Formal Operations**

This stage reflects a major transition in the thinking process. The child now is able to work with abstractions, theories and logical

relationships without referring to the concrete. This stage provides the foundation for problem-solving activities.

The transition from one stage to the next involves maturation. According to Piaget, these stages are sequential and hierarchical. It is very important that a child be given the opportunity to stabilize thought and behaviour at each stage.

CHAPTER 11

Behavioural Difficulties – Understanding and Management

There are several schools of thought when dealing with social and emotional issues in children with learning disabilities.

One view, cited by Johnson and Myklebust (1967), is where a child's deficit in social perception could be due to a neurological dysfunction in the brain and this deficit in turn has an effect on the academic functioning of the child.

For example, consider Tina, an eleven-year-old child with impulsive behaviour. Tina can read and spell adequately; however, she cannot get along with her classmates because she has a tendency to say whatever comes to her mind without thinking of the effect it may have on the other person. As a result, her classmates shun her. She is more or less an outcast in her class. This has an effect on her self-esteem and her academic work suffers.

Another viewpoint is that a child who has a learning disability in an academic area is prone to anti-social behaviour because of his academic difficulty.
Consider Jagat who is a poor reader. He is acutely aware of this. His classmates make fun of him when he reads and his parents and teachers constantly scold him for his poor reading skills. His self-esteem suffers drastically. Jagat has now been so sensitised to his difficulty that the moment he sees two children in his class whispering and laughing

together, he immediately assumes it is about him and he tries to beat them up or create trouble.
The main issue in either case is lowered self-esteem – an issue that will be addressed comprehensively in a later chapter.
Whatever the case may be, a parent or teacher, not aware of the situation, may unknowingly mishandle these children. That drastically worsens the situation. Disciplining such a child is not an easy task.

The question that a parent or teacher faces in such a situation is, how responsible is the child for such behaviour and what kind of action, disciplinary or otherwise, needs to be taken? At the same time, how fair is it to subject the rest of the children to the anti-social behaviour of the child?
According to Piaget, causality, the relationship between cause and effect is a skill that a child begins acquiring in the first two years of life, which is the sensorimotor stage. Through the following years, this skill develops.
The ability to deal with causality and base judgements and thinking on causality is a skill that should be firmly in place by the age of eleven.
The importance of this skill from a social perspective is because most of the time, relationships are based on cause and effect. An action by one evokes a reaction from another and that becomes the basis for a relationship to survive, strengthen or collapse.
Alka has a new friend who comes to play with her at home. When she arrives Alka exclaims, “You are so fat”. This would-be friend immediately turns around and walks right out. Alka is confused and hurt because she does not realise the consequence of her action.
Alka is not ready to understand that it is socially unacceptable to make a rude remark about a person and further does not realise that if she wanted

to have the child as her friend, she needed to be warm and welcoming. Clearly, she saw no relationship between the causal factor – the rude remark and the effect – the child leaving the house, turning down Alka's 'gesture' of friendship.

The question here is, "Is there a direct causative relationship between a child's learning disability and his/her disruptive , antisocial behaviour?" children with learning disabilities may misread social cues and act impulsively. Their understanding of a social situation that helps them read the intent of another's behaviour (their information processing systems) might not work as efficiently as those of other children.

Jagat needs a pencil and he sees a pencil on his neighbour's desk. He takes it away without asking. He does not realise that before borrowing something, one needs to ask for permission.

This happens very frequently in a parent – child relationship. The child feels that he/she can use anything that belongs to a parent without the prior consent of the parent. To further confuse the issue, the child breaks/misplaces or forgets to return the object and the parent has to go without it when he/she needs it. This can create a very stressful situation at home and can be the cause of a deteriorating relationship between parent and child especially when the parent does not recognize the special needs of the child.

There are several interactive factors that explain why children with learning disabilities are at a greater risk for anti-social behaviour. Internal dispositions, school, family and community factors could contribute to the condition.

Disadvantaged social positions, combined with the inability to accurately read social cues and a sense that no matter how hard you try, you cannot

achieve in school as well as other classmates or siblings can, creates a recipe for frequent disruptive anti-social behaviour. Acting out, releases feelings of frustration. It gives a time-out from anxiety. Thus it can be self-reinforcing. It also distracts an audience of peers, parents and teachers from the real problem of a learning disability. With their disruptive behaviour, Jagat and Alka become the best troublemakers rather than the poorest students.

It becomes necessary for all those involved in parenting and education to realise a single important fact, in dealing with a child with learning disabilities – ***The child displaying anti-social or disruptive behaviour may not be in control of such behaviour.***

Rahul, a 16-year old who reads at a second grade level, feels embarrassed to be seen with an elementary text and when asked to read from it, reacts by throwing his reading book across the room and using inappropriate language to inform the teacher that he does not want to read.

Sita, an eight year old who reads Stephen King novels for recreation, finds her reading assignments boring and therefore, angrily pushes the school text book and workbook to the floor when the teacher comments on her lack of progress.

Samir, a 10-year old has a difficulty in organizing his personal space and is constantly losing things. When he comes home from school, he throws his bag in one corner, tosses off his shoes in another and leaves his belt in the middle of the hallway. When his mother insists on his putting everything in place, Samir throws a tantrum, stomps out of the house and doesn't return for a few hours.

Maya, a 12-year old who has problems paying attention, is so over stimulated by what she sees and hears outside the window next to her desk, she slams her text shut and loudly declares that she cannot work.

The conclusion drawn from the above examples could be that although the above behaviours are similar to one another, the underlying reason in each case is totally different. This would mean that trying to control the apparent misbehaviour is going to do very little towards modifying it. An identification of the fundamental cause will contribute very positively towards developing an effective remedial strategy that addresses the behaviour and the cause.

Reactive procedures, such as suspending or grounding the child as a punishment for acting-out, will only address the external manifestation of the problem, and will not eliminate the actual underlying problem that is beyond the control of these children.

The embarrassment that Rahul feels, Sita's boredom, the frustration that Samir experiences or Maya's inattention; these are the actual problems which need to be addressed. Therefore, each of these behaviours is likely to occur again, regardless of punishment, unless the underlying causes are addressed.

One method of dealing with issues in behaviour is to determine the purpose of the behaviour. Once that has been determined, a suitable intervention strategy has to be developed which focuses on identifying and teaching acceptable alternatives to the offending behaviour.

If a child seeks adult attention by throwing a tantrum, a strategy could be devised where the child is taught that there are more acceptable ways of gaining adult attention. Helping around the house/classroom or working on a constructive project would get him the attention he required. In such a case, it is the behaviour that is inappropriate, not the reason for it.

An assessment of the problem behaviour or 'functional' behaviour is an important part of any remedial programme. This would enable the remedial teacher to develop methods and strategies that will remove the student's need to engage in negative behaviour, which would otherwise hinder academic progress.

It may be possible that the learner does not possess a particular skill and therefore cannot perform certain tasks. The negative behaviour that these children display would help them avoid or escape a task, as in the case of 10-year old Samir who is unable to figure out what goes where when he returns home from school. His tantrum is a sign of frustration and he runs out of the house to avoid doing the job.

It is necessary to find out whether the child has the skills necessary to perform the new behaviour expected of him. A student with a central processing disorder, who has been told to be truthful, will not understand that it is inappropriate to call her guest fat!

To conduct an informal assessment of functional behaviour, the following questions need to be addressed:

- What is the setting in which the inappropriate behaviour is observed?
- Is there any kind of setting where the behaviour does not occur?
- Who are the people around when the behaviour occurs?
- What happens just before the behaviour occurs?
- What happens immediately after the behaviour?

A part of this informal assessment would be through talking to the child concerned. It is very useful to understand the child's perspective in what caused him or her to behave in the way they did. Some of these questions that can be asked are:

- What were you thinking when you slammed the door?
- Did you feel better when you stormed out of the house?
- Why did you feel better?
- Did walking out of the house like that help you resolve anything?
- Would you like to learn how to prevent this behaviour in the future?
- Would assistance from any particular person help you with what seems to be upsetting you?
-

The application of this line of questioning to ten-year old Samir will immediately show how information collected by this method can be very valuable.

The important part is for the intervening adult to show a lot of patience and understanding with the child. This is because if the already emotionally overwrought youngster feels threatened, he is likely to be very unresponsive and unyielding. It therefore becomes the responsibility of the adult to draw out the child. It has truly been said – "the less lovable they seem, the more loving they need!.

CHAPTER 12

Self-Esteem in Children

It is said that children are born with only two kinds of fear – the fear of loud noises and the fear of falling. All other fears and insecurities are acquired as a result of the child's interaction with the environment. Insecurity eventually plays upon self-esteem, which is a very crucial factor in academic and social success.

What is Self-esteem? Lawrence (1988) uses three important terms in enabling us to answer this question. He firstly describes *self-concept* as the way in which the individual children perceives himself or herself and makes judgements about their personal worth. He then goes on to describe *self-image* as the awareness of personal attributes, and mental and physical characteristics. This includes the personal perception of himself or herself being loved or not loved. When a child evaluates this *self-image* against an ideal self of how they would like to be, this forms their level of self-esteem. It is our belief and perception that we have of ourselves. It is this perception that influences our behaviour, attitudes and emotional stability.

Self-esteem starts building very early in life. A baby trying to grasp an object experiences a sense of accomplishment at achieving the task. When he attempts to take his first steps and succeeds after falling down several times in the process, this sense of accomplishment becomes better defined and it grows as the baby keeps striving and accomplishing. He starts realizing that persistence leads to success. At the same time, as the baby's world expands to include other people, his interaction with others helps him to evolve a concept about himself. This is why the involvement of parents at this time becomes very significant as it can

help the child form a healthy self-perception that leads to a healthy self-esteem.

Self-esteem is a combination of feeling loved and wanted along with a sense of achievement. A child may be a high achiever but if he feels that he is not loved, it would lower his self-esteem. Conversely, a child who feels loved but is unsure about his own capabilities will experience low self-esteem.

Children with learning disabilities are more likely to suffer from lack of self-esteem than their peers and this could lead to behavioural disorders and a myriad of problems if the right kind of attention is not given at the right time.

Children need constant encouragement and appreciation along with an innate sense of security. In the parent and teacher, this understanding, with a sense of awareness and a commitment to work together, can contribute to the development of positive, healthy feelings in the child. Here are a few pointers to help parents and teachers along the way:

1. **Highlight strengths, underplay weaknesses**.
   Many children tend to view themselves very critically especially where academics and sports are concerned. Focus on strengths and praise the child not only for the job done but also for effort. If the child has not got the 'Student of the week' award, do not say something like, "Try harder next week and you will probably be selected". The appropriate encouraging response would be, "I am very proud and happy of the hard work that you put into this." This signifies appreciation of hard work and completion of the task.

2. **Avoid being judgemental**.

   Comments like "You haven't been trying hard enough. You must try to put in more of an effort" can be an unfair demand as, even though the child may be doing his or her best, certain difficulties hold back the desired output. A child with a reading disability is not going to pick up a book and read and even if he does, what he reads is not going to make much sense to him. It is really pointless telling the child to "sit down with your books".

   Any difficulty that prevents the desired output from being achieved should be addressed with a strategy to overcome the difficulty rather than accept the problem as unsolvable.

   The comment "If you haven't understood, let's try again in a different manner' keeps the child open and receptive to suggestions.

3. **Make your child feel special and appreciated.**

   Children feel special when they know they have the undivided attention of the parent for a while. This makes them responsive and open to suggestions as they feel that whatever is being said is with sincerity and is not just a form of dismissal. Parents could probably set aside a period of quality time in the day for each child, sharing and discussing issues that may be important to the child. The time that is being spent with the child must be free from telephone calls and visitors. Involve the child in daily routines and always appreciate a task sincerely attended to.

4. **Assist and encourage the child to develop problem-solving and decision-making skills.**

A high sense of self-esteem is associated with strong problem-solving skills. Even a young child can be helped in deciding whether she wants to wear the red dress or the blue dress. It would probably be easier for the parent to decide for the child but spending time in helping the child decide for herself sends a very positive message. Likewise, it is much easier for parents to clean up a messy room by themselves but if they take the time to supervise the child cleaning up the room, the action tells the child that the parent cares.

5. **Identify and address inaccurate beliefs your child may have.**

   Children very often have inaccurate and irrational beliefs about themselves. It is important for the adult to address these and help the child set more realistic goals for themselves. For example, a child who is very good in most subjects but struggles with math may feel that he is no good and will never be able to master math. The adult could help by telling the child, "You do very well in your school work. You just need to spend a little more time on math and we can do that together."

   Sometimes children are overly critical of themselves. A student good at art may tear down innumerable sheets of drawing paper because she cannot get the nose on the profile she is drawing as perfect as she wants it to be. An adult can help by encouraging the child to focus elsewhere on the drawing and return to the nose after sometime.

6. **Provide opportunities for children to help children.**

   Children love helping other children probably because they are able to empathise with the difficulty the other child faces and

because it also gives them a chance to display their areas of strength that consequently elevates their own self-esteem.

7. **Allow the child to develop a sense of control by having realistic expectations.**

   When the child feels that a target is within reach, it gives him a sense of control. It gives him the required impetus to think and strategize in order to enhance performance. In short it allows the child "breathing space" while working. It would be unrealistic to expect a child, who has to work on writing short sentences independently, to submit a page long written composition. The end goal may be a two-page composition but when broken down into closer and more realistic targets, it gives the child a sense of control and a sense of achievement.

8. **If a child has a learning disability, explain it.**

   Children are very perceptive – much more than adults realise. Hiding the fact that your child has a learning disability is going to cause much more anxiety to the child than the kind he already may be facing because he senses "something" is wrong somewhere. The child's greatest sense of security comes from knowing that his parents love and appreciate him. When a child knows that "something" seems to be wrong with the way he learns but does not know what, it causes a great sense of distress to his sense of achievement and to his perception of how his parents view him. Having realistic information provides the child with a sense of control that "things can be done" and knowing that he is not alone in tackling the difficulty gives him an added sense of security.

9. **Do not talk down to a child.**

   Children generally have their own logic when they carry out certain actions that are viewed as undesirable. It becomes important to understand why the child had behaved in that manner rather than punishing or shouting. A careful analysis of the undesirable behaviour can reveal a lot about how the child thought. Consider the child who chose not to tell his mother that she had dropped her mobile phone on the floor of the taxi they were travelling in. Later on when the mother discovered she had lost her phone and her son had seen it fall, she was extremely upset. She asked her son why did he not tell her that she had dropped the phone. He tearfully told her, "I wanted you to know how I feel when you shout at me for having lost something".

   Talking down to a child or with a tone edged in sarcasm never does anything to help. It only worsens the situation and relationship.

10. **Be spontaneous and affectionate with your child.**

    Giving your child a sudden hug, leaving notes and little tokens of affection will go a long way in boosting the self-esteem of your child. A gift voucher or a large sum of money is not remotely as valuable as a small well thought of gift. The child needs to know that you care and he must know that the love he receives from his parents is unconditional.

    The child needs to be secure in the thought that you love him for whatever he is.

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CHAPTER 13

MATH

Defining Dyscalculia:

Dyscalculia is a term that means a "specific learning disability in mathematics." People who suffer with a poor memory for all things mathematical have several symptoms and characteristics. Taken as a whole, these coexisting conditions comprise what is called the "Dyscalculia Syndrome". Simply put, it is an impaired ability to learn grade appropriate mathematics.

Recognising and identifying dyscalculia can be confusing, as it does not have clearly defined criteria. Also, a student who has dyslexia could have a difficulty with math because of a difficulty in reading, for example a student may persistently gets his word problems wrong because he cannot comprehend the text of the problem. If the sum were presented without the word problem, he would be able to solve it. A student with dyscalculia however, with elevated language skills may be able to read and understand the problem but in some mysterious manner, not be able to solve it.

Similarly, a learner who experiences reversals while writng (sees 'tow' for 'two') could get a sum wrong if he experiences these reversals with numbers too. Consider the student who has to add **23+46**. The answer he gives is **87**. What has happened is he has seen 46 as 64, so technically his addition is right because he has added **23+64**. The distinctiveness of dyscalculia therefore, is hazy and as such, the term is seldom used. However, there are symptoms, which could indicate a difficulty with processing numbers.

Symptoms

1. The answers for sums in addition, subtraction, multiplication and division keep changing. The same sum, done twice will produce two different answers.

2. Poor at mental math. The student maybe afraid of going to a shop to make a purchase because he is unable to figure out the change due to him. He may be unable to figure out a discount on the tag price of an item for purchase.

3. Personal accounts may be in a state of disorder. Fails to see how small amounts add up and unable to space out pocket money for a regular spending pattern. The child may be spend too much in one week without realizing that he will have very little money left for the next week.

4. When dealing with numbers, there are frequent errors due to number additions, substitutions, transpositions, omissions, and reversals. The student is almost always unaware of these mistakes. Similar mistakes with letters are rare.

5. The learner may have a distinct inability to grasp and remember math concepts, rules, formulas, sequences (order of operations), and basic addition, subtraction, multiplication and division facts.

6. Long-term memory (retention and retrieval) is poor. The student may perform a math function adequately on one day

and fumble in the same operation the next day. He may be able to work out of his textbook where similar sums are grouped together but may fail on tests and quizzes.

7. Reading music may be a difficulty. Sight-reading and learning how to play an instrument in a formal manner could be a problem. Often, children with dyscalculia do play a musical instrument with a certain degree of skill but that is more intuitive playing or playing by the ear.

8. May be unable to comprehend or "picture" mechanical processes. Lacks "big picture/whole picture" thinking. Poor ability to "visualize or picture" the location of the numbers on the face of a clock, the geographical locations of states, countries, oceans, streets, etc.

9. Poor memory for the "layout" of things. Gets lost or disoriented easily. May have a poor sense of direction, lose things often, and seem absent minded. (Remember the 'absent minded professor?') May experience anxiety when forced to navigate under time pressures, like when changing classes, during swim meets, playing football, basketball, or baseball.

10. Experiences directional confusion. Has difficulty discriminating left from right, and north, south, east and west. Has poor memory for remembering learned national concepts: starboard and port, longitude and latitude, horizontal and vertical, and so on.

11. Despite good muscle tone and strength, may have only good to fair athletic coordination. Has difficulty keeping up with rapidly changing physical directions like in aerobics, dance, and exercise classes. Difficulty remembering the physical sequences required for routines, karate moves, dance steps and "sports plays." Has difficulty remembering the rules for playing sporting games, remembering the order of play, and understanding technicalities. Is quickly "lost" when observing fast action games, like football, baseball, and basketball. As a result, may avoid physical activities and physical games.

12. Difficulty keeping score during games, or difficulty remembering how to keep score in games, like bowling, etc. Often loses track of whose turn it is during games, like cards and board games. Limited strategic planning ability for games, like chess.

13. Acquisition of language is normal or accelerated. In fact verbal language and the skills of reading and writing may be a strength. The ability to understand the metaphorical language of poetry is well developed. The student may have a good visual memory for the printed word and also be good in the areas of science (until a level requiring higher math skills is reached), geometry (figures with logic not formulas), and creative arts.

14. Difficulty with time management. Inability to recall schedules, and sequences of past or future events. Unable to keep track of time. May be chronically late. May be unable to memorize

sequences of historical facts and dates. Historical timeliness are vague.

Students with dyscalculia are typically gifted in other academic areas. They may achieve excellent grades and can be dedicated learners. Math however, is a mysterious problem to the learner because the subject does not lend itself to the skills within the scope of the learner. He may read, understand and solve sums and problems but instead of getting better with practice, surprisingly, he keeps forgetting and the learning process has to begin all over again.

The natural reaction to this would be to try harder. The student calls to his aid, all his strategies and resources that he uses in other areas and tries to apply it to his math problem but it does not seem to work and his frustration increases. He is confounded by the fact that even though he is able to read the text and understand, there is a vital factor eluding him that prevents comprehension in math.

The student now goes forth and seeks help from others. This does not help either, as the student is unable to follow explanations that are out of context and isolated. It is too much time and effort for both the instructor and the instructed to go back to the basics and begin explanation from there. The student falls further and further behind and catching up with the class seems a remote possibility.

However, the student is intelligent and he knows that there is probably one trick , one strategy that is getting overlooked, time and again.

Consider this case of a student who suffered from a math difficulty. Fortunately for her, she was in a system that was responsive to the special needs of students so she decided to write to her math teacher. This is what followed:

“Dear Math Professor:

1. On tests, please allow me scrap paper with lines and ample room for uncluttered figuring.
2. I need instant answers and a chance to do the problem over once, if I get it wrong the first time. Often my mistakes are the result of “seeing” the problem wrong. To avoid this, you would have to watch as I went through each problem, correcting any mistakes in recording as they happened.
3. Problems written too closely together on the page cause me mental confusion and distress.
4. Please make the test problems pure, testing only the required skills. They must be free of large numbers and unnecessary distracting calculations. These sidetrack me into frenzy.
5. Please allow me more than the standard time to complete problems and please check to see that I am free of panic (tears in my eyes, mind frozen).
6. If possible, please allow me to take the exams on a one-to-one basis, in your presence.
7. Most importantly, never forget that I WANT to learn this and retain it! But realize that math is very DIFFERENT than other subjects for me. It is traumatic! The slightest misunderstanding or break in logic overwhelms me with tears and panic. Please understand that I have attempted math and failed many times. Math is emotionally charged for me. Pity will not help, but your patience and individual attention will.
8. I do not know why this is so hard for me. It is as if my math memory bank keeps getting accidentally erased. And I cannot figure out how to correct the system errors!

9. I ask that we work together after class on the material just presented. Or, if that is impossible, sometime that day for at least an hour.
10. I ask that extra problems be given to me for practice and maybe a special TA (teaching assistant) be assigned to me.
11. I know that working with me may be just as frustrating for you. There are no logical patterns to my mistakes. A lot of them are in recording or "seeing" one part of a problem in another. Sometimes I read 6x(6+3) as 6(x+3). Sometimes I read 9 as 4 or y as 4 and 3 as 8. After you work with me a couple of times, I am sure you will realise how important it is, to keep problems as pure and simple as possible because my brain creates enough of its own frustrating diversions.
12. It is typical for me to work with my teacher until I know the material well and then get every problem wrong on the test. 5 minutes later, I can perform the test with just the teacher, on the chalkboard and get all the problems correct. So please do be patient with me and do not give up on me.
13. When presented with new material, I must be able to write each step down and talk it through until I understand it well enough to teach it back to you. Maybe you could go over the upcoming lesson with me. Then the lecture would be more of a review and I would not be sitting through class in tears.
14. Lastly, I am sure you know by now that I am not trying to "get out of" doing what is required of the rest of the class. I am not making excuses for not "pulling my load". I am willing to put way more into this class than is required of the average or

better student. I am not lazy and I feel smart in everything but math.

(Ref: Renee M. Newman, R.M. Newman Communications Henderson, Michigan, USA. Source location :http://www.shianet.org/~reneenew/thesis.html.)

Underlying causes of math difficulties:

Visual Processing Weakness – This is probably the most apparent cause of a math difficulty. To be able to work in math, the student has to be able to visualize numbers and situations in math. When a learner has a visual processing weakness that is generalized, it is also called a non-verbal learning disability. Interestingly, this leads to a difficulty in spellings and handwriting even though reading and writing skills may be strengths. Due to the non-verbal learning condition, the student cannot estimate space, position and orientation and this results in letters that are either too large, too small or inconsistent in shape and size and orientation which leads to poor handwriting and spelling.

Sequencing Problems – The ability to sequence is an essential requirement for being able to do math. Students who have a difficulty in sequencing would have a difficulty in remembering multiplication tables, math formulas, the steps involved in solving a problem and in organizing information. They would also have a problem with spelling since spelling requires sequencing of letters and syllables. Essay writing would be difficult because that requires an orderly projection of thoughts on paper. Reading would be difficult too since reading requires a systematic form of decoding.

CHAPTER 14

Strategies for Students With Math Difficulties

Here are some methods that can be employed while working with children who are dealing with a difficulty in math:

1. Help the student visualize the math problem. He could draw a picture; make notations using coloured sketch pens, use a graph or chart, anything that helps visualizing.
2. The teacher could read out the problem very slowly and clearly with emphasis in the right place. **(….Rita paid Rs 36/- per dozen…..").** The student himself could read out the problem and listen carefully to what he reads.
3. Explain the problem to the student using a real life situation.
4. Use a square line book for the learner to do sums in. The squares will help him keep track of the alignment required for sums that involve large multiplication and long division.
5. Provide worksheets that are clear and well spaced so the student experiences relief when looking from one sum to the other.
6. Spend time in helping the student memorize math facts. Use music, rhythm or body movement to help memorization. One little girl learnt her multiplication tables by bouncing a ball for every step of the table. She later used this strategy to help her spell. One bounce for every letter gave her the body movement she required to reinforce the auditory input that she was receiving.

While considering the strategies that would help in math skills, one needs to be aware of what the prerequisite skills are, for math.

These are:

- **The ability to sequence and follow sequential instructions**. This is a skill, which is very necessary to be able to do math. The middle and higher school math consists of several steps to a problem and one step done out of order will produce the wrong result. For example, in the problem **2+3x6,** applying the mathematical rule of BODMAS, the first operation is **3x6**, which is **18**. Then **2+18=20**. Visually it looks as if **2+3=5** hence **5x6=30**. This computation is incorrect because it does not follow the rule of BODMAS.
- **Understanding spatial orientation and directionality**. Very often the student has confusion between left and right and gets confused between north, south, east and west. Spatial orientation refers to the ability to visualize a three dimensional object in a given frame of reference. The student needs to understand the concepts of horizontal-vertical-diagonal, up-down and similar references.
- **Understanding patterns**. To understand a sequence, the learner has to recognize the pattern on which the sequence is built. For example the famous Fibonacci sequence goes: 1…1….2…3…5….8…13….21….34…and so on. The pattern on which this sequence is based is, the sum of any two consecutive numbers is the number immediately to the right of those two numbers.
- **Estimation**. The ability to guess numbers, size or amounts, within reasonable limits. If the student faces a large addition say **24363+75367,** on looking at the figures he estimates that

the sum of these two numbers are in the region of **99 thousand**.

- **Inductive Reasoning**. This involves observation of patterns and the use of those patterns to make generalizations. In short, it is a method of thinking that moves from the specific to the general.
- **Deductive Reasoning**. This involves making predictions in specific cases based on generalizations.

For instance, if one cannot follow sequential directions, he will fail at division. Long division requires retention of several different sequential processes. First one estimates, then multiplies, compares, subtracts, then brings down a number from the dividend and the whole process is repeated.

For the same situation, what if the student has directional confusion? When setting up math problems, he will be chronically unsure of which number goes inside the division platform, or on top of the fraction. The mechanics of moving through the problem will be painful. Consider the directional steps involved. One reads to the right, then records a number up, then multiplies numbers diagonally, then records the product down below (taking into consideration place value), then brings a number down, then divides diagonally and places the answer up above, then multiplies diagonally and so on.

If a child has poor perception for things in space, his writing may be disorganized and jumbled. Numbers are not lined up adequately or formed legibly. Operational symbols and notations are often mistaken for numbers in the problem. Geometry may be equally perplexing. Frustration and confusion plague this student.

Having considered myriad problems that perplex the poor math student, it is crucial that each child is evaluated individually and the exact nature of the difficulty is determined.

The Six Levels of learning a Math Concept

In order to acquire mastery over a mathematical concept, there are six levels of learning that a student moves through.

1. **Intuitive Connections**: The student connects or relates the new concept with existing knowledge and experiences.
2. **Concrete Modelling**: The student looks for concrete material with which to demonstrate the concept.
3. **Pictorial Representation**: The student now connects the concrete example to the symbolic picture by means of an illustration.
4. **Symbolic Representation**: The student translates the concept into mathematical notation using numbers, symbols, operational signs, formulas and equations.
5. **Application**: The student applies the concept successfully to real world situations, story (word) problems and projects.
6. **Communication**: The student can teach the concept successfully to others or can communicate it on a test. Students can be paired up to teach one another the concept. (Sharma 1989).

(Ref. Renee M. Newman, R.M. Newman Communications Henderson, Michigan, USA. Source location: http://www.shianet.org/~reneenew/thesis.html).

Activities that parents can do with the child:

- When travelling by car, ask your child to add up the numbers on the registration plate of the car before him.
- Ask your child to estimate the number of steps it would take to reach from the dining room to the front door. Then ask him to actually walk and count the steps and compare the actual number to the estimated number.
- Ask your child to close his eyes and estimate 'one' minute without counting in his head. He could signal what he thinks is the end of one minute by raising his hand. Run a stopwatch simultaneously and compare his estimation to the actual time of one minute recorded on the stopwatch.
- Give your child weekly pocket money and after showing him how to, ask him to maintain a small diary recording his expenses.
- Take your child on a shopping trip and ask him to guess the value of items on sale. Let him compare his estimation to the actual tag price.
- Prepare numerical, alphabetical and visual sequences for your child to complete. For example, Numerical : 2....4.....6.....8....10 .._____ (Ans: 12. Even number sequence).
- Alphabetical: a ....d....g....j....m....___ (Ans: p. Every third alphabet from 'a')

- Visual

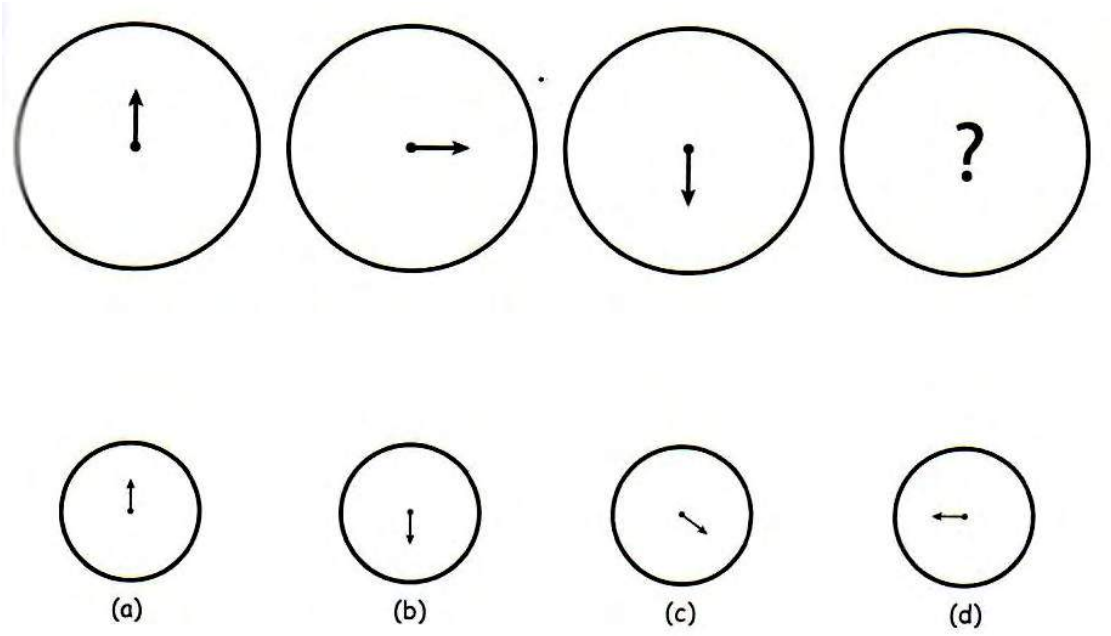

Fig 4 Visual

According to Piaget (1949 -1958), children learn by manipulating objects until they are 12 years of age. Math also, during this time, needs to be taught using concrete examples and hands-on methods. In his theory of cognitive development in children, Piaget says that the years 7-11 is a Concrete Operational stage where the child achieves conservation of number, mass and weight.

For example, the concept of addition can be taught using a weighing scale and some modelling clay. The learner puts a lump of clay onto the weighing scale and notes down the weight. He then adds another lump of

clay and notes down the increase in weight. This kind of an activity will help the student understand the concept that addition means increase.
The reverse procedure could be used to demonstrate subtraction.
Multiplication can be explained as repeated addition and division as repeated subtraction. *(This technique is demonstrated in the movie 'Little Dreamers')*

Piaget says that the stage of Formal Operations starts from age 11. Now the student can think logically and can understand abstract concepts.
If concrete explorations are abandoned in favour of abstractions before the child is ready, it could result in serious mathematical difficulties for the child.

CHAPTER 15

Learning Styles And Assessments

Disability/ difficulty/ differently abled

There is a lot of confusion over the term used to describe a learning difficulty. Different counties have different terms to denote the same learning condition.

The term '**Learning Difficulty'** as opposed to '**Learning Disability'** is a more acceptable term because the child is perceived to have a disability in the context of the restricted educational framework, which largely depends on the visual mode of learning. Also, a disability is a stronger connotation than 'difficulty'. It portrays a situation, which seems insurmountable whereas the term 'difficulty' seems to be easier and within reach, indicating that something can be done about the 'difficulty'. Since these children are 'differently abled', that is the accurate term used to describe and recognize this condition. If an educational pattern incorporated extensive multi-sensory teaching strategies and similarly, accepted an output from students in modes other than visual, these children would have a much better opportunity to cope with the curriculum. For example, a child who has a difficulty in writing due to problems with motor coordination should be allowed to give tests and examinations orally, much like a viva voce. Further, a learning difficulty could be viewed as a 'normal' deviance of brain function. Everyone has a difficulty in one area or the other. Most of the time, it does not interfere with day-to-day life but when the area of difficulty is in the cognitive region, it impedes development since dissemination of information in our educational framework, is largely through reading and writing.

Deficit vs. Delay

It may be useful to consider the idea of 'deficit' versus 'delay' in respect to etiology since it would have important implications for example, whether to teach a child as if he were just younger or to teach him differently.

Learning Styles

Every learner has a preferred learning style that is a result of his strengths and weaknesses.

The brain processes information in several ways. The two main processes that are believed to be involved in learning are :

1. Sensory Processing
2. Cognitive Processing

Sensory processing deals with how the brain receives information through the senses. There are five sensory processing channels: Vision, Hearing, Touch, Taste, and Smell through which the brain receives information. Once the brain receives the information, it interprets that information which then translates into output. The interpretation is the cognitive processing.

Out of these, the main sensory areas that can cause trouble with academics are Visual and Auditory processing channels.

Visual Processing

Visual processing involves how well the brain uses visual information. Is the student comfortable with pictures, charts and graphs? Can he retain information when it is presented visually? Can he 'see' pictures, words, and numbers in his head? Visual processing includes:

- Seeing differences between things
- Remembering the details in a picture

- Recognizing a picture by seeing a part
- Coordination between visual and motor skills like seeing a circle on the blackboard and drawing a circle in the book.
- Visualization and imagination
- Art

Children with a difficulty in visual processing experience problems in areas that require revisualization skills such as math and spelling since visualization of symbols, letters and words is difficult. The student has poor handwriting and poor page organization.

Auditory Processing

It involves the processing of information that is received through the auditory channel that is the ears. It includes:

- Being able to make out the difference between voices
- Being able to make out the difference between different sounds
- Remembering specific words or numbers like responding to one's name or roll number
- Recognizing a word even if some sounds are missed out
- Blending different sounds together to form a word
- Music

Children with a difficulty in Auditory Processing usually have problems with reading, writing and language. They would be poor at decoding new words, comprehensions, spelling and sentence structure and would have a difficulty with expression. They would also find it difficult to follow oral directions and learn by oral instruction. While executing a remedial programme, it is imperative to identify the dominant learning style and deliver instruction using that sensory mode. At the same time, the weaker sensory modes need to be stimulated.

Assessments

The nature of a learning difficulty and the method in which to handle it is determined through a assessment. A well-structured, exhaustive assessment can provide vital information about the learning methods of the student. This information enables the facilitator (which is usually a parent or teacher) to provide the child with instruction delivered in a manner that the child can understand. It also indicates the areas of difficulty and the areas of strength thus making remedial programmes more effective.

A thorough assessment would involve an audiometry and vision test to rule out physiological problems. It also includes a complete medical, developmental and emotional history of the child. That is followed by an interview of the parents. Sometimes, a stray remark or observation can throw a lot of light on the condition of the child. Finally, the actual assessment involves a series of tests and exercises that help the special educator assess current academic levels and preferred learning styles.

Children with Learning Difficulties are a heterogeneous group. The wide range of both degree and type of learning disorders requires diversity of approaches and of diagnostic techniques. A child with a severe disorder may need a complete intensive diagnosis whereas a child with a milder or borderline difficulty may be helped with a less intensive examination.

An informal assessment can be carried out by a resource person or remedial teacher trained in the techniques of administering these tests. It is usually carried out within the school premises, the advantage being the child would respond better since the environment is probably perceived to be non-threatening.

Formal testing is done using standardized tests and is used to determine performance in particular aspects of learning.

There are many choices in selecting an evaluation activity. There are commercial tests, curriculum tests, criterion referenced skill inventories, checklists and teacher-made instruments.

CHAPTER 16

Dyspraxia

The term learning disabilities or learning difficulties is an umbrella term, for many specific learning difficulties such as *dyslexia* (difficulty in writing), *dyscalculia* (difficulty with math), *dyspraxia* (difficulty with movement), *dysnomia* (difficulty in naming objects). This chapter will address the difficulty known as **Dyspraxia.**

What is Dyspraxia?

Dyspraxia is one of the lesser-known difficulties. It is a developmental disorder that impacts co-ordination. It is a difficulty that affects the organization of movement. This happens because the brain does not process information properly. That results in confusion in 'what to do and how to do it.' A simple instruction from the teacher like, 'Remove your Geography textbooks and put them on your desk' can cause utter confusion in the mind of a child with dyspraxia. Dyspraxia is associated with problems in perception, language and thought.

As defined by the Dyspraxia Foundation (Dyspraxia Trust 1997); Dyspraxia is an impairment or immaturity in the organization of movement which leads to associated problems with language, perception and thought.

The incidence of Dyspraxia is thought to be 10 per cent. Boys are affected four times more frequently than girls. As is generally the case with learning difficulties, 50 per cent of the time, a child with dyspraxia is also dyslexic. Learning disorders very rarely occur in isolation.

There are several signs and symptoms, which indicate that a child could have dyspraxia. Children have different blends of difficulties and different levels of severity. This makes accurate diagnosis quite difficult especially as the children's performance can vary depending on the setting. Also, the child with dyspraxia is of average or above average intelligence since Dyspraxia is not a general pervasive disorder. This means that these children do not have a general low level of attainment therefore the affected children can understand what is wrong and how intervention will work for them. Children with dyspraxia are hard to identify by physical appearance, and therefore, are often not given the required attention. Due to the levels of intelligence, the child with dyspraxia will often develop his own strategies to cope with his difficulties. In doing so, symptoms of dyspraxia get masked making diagnosis difficult.

Dyspraxia is a difficulty in co-ordination of movement. "Co-ordination" refers to numerous actions that depend on different abilities such as perception, rhythmic awareness and a sense of balance during movement. Perception is where the learner understands and uses his environment to make spatial judgements. For example, a child will walk along a riverbank away from the edge by estimating what would be a safe distance so as to prevent him from falling into the water. A more explicit example would be the person trying to cross a busy street. He has to accurately estimate the speed of the approaching car in order too safely get to the other side of the road.

Coordination is of two kinds – (a) whole body coordination which involves large muscle movement which is responsible for gross motor skills like walking, running and jumping and (b) fine motor movement which involves the smaller muscle groups responsible for the skills of writing, drawing and crafts.

Poor muscle tone can cause a lot of difficulty in performing basic functions like walking and running, for example if the muscles in the hips and legs do not synchronize in movement, the child may find his toes turning inwards causing him to trip over his own feet.

In kicking or catching a ball, eye-hand co-ordination is required along with controlled muscle movement in the arms and legs. For a child who has a difficulty in coordinated movement, so many simultaneous processes can be overwhelming. When there is a difficulty in the coordinated movement of smaller muscle groups, the child's handwriting suffers.

There may be the inability to lace ones' shoes or button a shirt. Lack of fine motor control can also affect the speech muscles in which case, the child may lisp or be poor in his articulation and enunciation of words.

The child with dyspraxia may lack a sense of ***'body boundary'***, which is the awareness of the child as to where the body ends and the apparatus he is handling begins. This is important when handling an object that is external to the body, like catching a ball. The child has to figure out just how much he needs to stretch his arm so that his hand will make contact with the ball that has been thrown to him. This seems like a long drawn process when described in detail but most children carry out the entire sequence of movement required in catching a ball quite unconsciously unlike the child with dyspraxia who gets completely confused.

A child might find writing difficult because of the inability to grip a writing instrument adequately. They may have a problem because

handwriting involves crossing the body's midline. It may be very difficult to coordinate the movement so that the right hand reaches the left side of the left hand page without error. The children would have a difficulty in putting on a pair of socks or reaching 'across' to pick up an object.
A child who has a problem with mid line definition could be very good with keyboarding though, since both hands are used and each hand works on its own side of the body.
Despite these difficulties, children can be helped to improve their skills, given time, encouragement and sustained practice. Strangely though, a child who may be competent with a particular skill may not necessarily be so in a different environment. This is because dyspraxic children are unable to transfer learning from one situation to the other. They do not have ***'movement recall'*** which allows them to select aspects of movements that they can already do and apply them in a new situation.

Recognizing symptoms of dyspraxia:

At the pre-school level, the symptoms displayed by a child with dyspraxia are –

- Delay in developmental milestones of sitting, walking and speaking.
- Unable to hop on one leg, run without falling or throw/catch a ball.
- Slow in learning how to dress, turn doorknobs and use cutlery.
- Difficulty in development of feeding skills.
- Difficulty in holding pencil.
- Trouble in sitting at a desk.
- Sensitive to touch and high noise levels.
- Forgetful and disorganized.

- Very easily excitable.

Symptoms in the primary and secondary level student are:

- Poor performance in physical activities
- Difficulty with reading, spelling and writing
- Inability to follow a sequence of instructions
- Short attention span
- Difficulty in copying from the blackboard
- Messy handwriting
- Difficulty in riding a bike
- A tendency to trip and fall
- Constantly getting hurt with sharp objects
- Poor sense of direction
- Poor memory
- Cannot estimate passage of time

Understanding the child with Dyspraxia

The student with dyspraxia has an intellectual functioning that is average or above average but he still faces a difficulty with academic achievements. Much in the way a dyslexic child who has perfect vision but has problems with visual processing or a student who has perfect hearing but has a difficult in auditory processing, the dyspraxic child has trouble with *functional intelligence*. Difficulties in perception create confusion and the student misreads information and this hampers his academic development.

Consider the student who sits in class and take down accurate notes during a lecture. His notes are exhaustive but handwriting is very untidy. Letter formation is poor and so is page organization. When this

student tgries to read what he has written, he is unable to understand a word. He loses out on the effort he has put in while taking notes in the class.

There are different ways in which the child can be assisted. The most important thing at this time is in understanding where the difficulty lies which could be any or all of the following:

- Knowing what to do
- Organizing oneself to do what needs to be done
- Actually doing the task.

Consider Rita who knows she has to get up from her desk to shut the window to prevent the rain from coming in. She knows *what to do*. Rita has to be aware of the sequence that is required to do this; (1) She has to push back her chair so she has place to stand up. (2) She has to turn to her right and then around to move out of her desk space to reach the window behind her. (3) She has to walk to the window and then has to unlatch the windows and pull them inwards to that they shut on the window frame. (4) She then has to wipe her hands that are wet. (5) Then Rita has to return to her desk. *This is how she mentally organizes herself to carry out the task.* Now Rita actually gets up, carries out the sequence, shuts the windows and returns to her desk, accomplishing the task. *Rita has carried out the task.*

The entire procedure would not have take longer than a minute from the time Rita thought she needed to close the window till she actually did. This analysis of a simple task of shutting a window shows in how many places it is possible for the child to falter. Something that is so easy for most children can be a daunting task for a child with dyspraxia.

Raj is a student with dyspraxia. This is what happens to him while getting ready for school in the morning.

Once he has woken up, Raj realises he has to be ready in one hour to catch the school bus. He is frequently late and so that morning he is determined to be on time. He reaches the bathroom door and has a bit of difficulty in turning the door handle, as it seems to keep slipping from his grip.

In the bathroom, while putting paste onto his brush, he happens to squeeze out much more paste than required. The paste spills all over the basin and Raj hurriedly clears it up for fear of being scolded. After brushing his teeth, he heads for a bath. During the course of his bath, the soap slips from his hands several times and he has trouble retrieving it each time.

Once that is over, Raj has to deal with the task of putting on his clothes. He puts on his shirt and as he reaches the last button, he realizes that he has buttoned the wrong way so he has to unbutton every button and redo the whole thing.

When attempting to put on his shoes and socks, Raj has to cross the midline of his body and that confuses him. He usually gets the wrong shoe on the wrong foot, which he realizes only when he feels the discomfort so he has to sit down and take his shoes off and put them on again. At breakfast, he spills some of his milk onto his shirt so he has to wipe it clean. When he picks up his bag he remembers that his History homework is lying on his desk in his room so he rushes to get it, stumbling on the way.

After all these delays that he has suffered, is it any surprise that Raj is late for the school bus most of the time? The frustration he must be facing in not being able to make it on time even though he desperately wants to would be very strong. Besides all that, he will have to face his classmates

who will ridicule and make fun of him for being unable to make it to school on time.
This is certainly a terrible way to begin the day!

Actually, when one examines the routine and series of mishaps that Raj went through, no mishap seems to be striking or glaring in itself – in fact most of the time, it escapes notice altogether yet the cumulative effect is quite debilitating.
What goes wrong for Raj?
Raj generally is aware of his daily routine in the morning but sometimes he gets confused over the sequence of actions to be carried out. To have a bath, Raj needs to organize warm water, some soap and a towel. When turns on the tap, cold water comes out and he realizes that he has forgotten to switch on the water heater. He may be in the act of packing his schoolbag when he spots his wet bath towel and remembers he needs to hand it out to dry so he leaves his bag packing unfinished, forgetting about his history homework that yet has to be packed and he goes to hang out his towel. Raj is unable to deal with the effort it takes to get organized in order to carry out the task of getting ready. Frustration builds up and on seeing no way out; a sense of despondency sets in. He soon starts resisting the morning routine and makes every excuse to avoid going to school. Raj needs help.

It is believed that problems with movement may be more difficult to eliminate than other deficiency classifications (Cowden and Eason, 1991). Regular practice sessions that are short and intensive can make a substantial difference to the condition. If the child feels that there is no help forthcoming, he will lose confidence and become afraid of moving

altogether. This lack of practice worsens the condition and has a further implication according to French and Lee (1996). They write:

It is widely accepted that the development of controlled movement has a part to play in the intellectual development of children. Children need to experience movement in order to learn about themselves, the relationship to the environment and the interaction between the two.

Verbal Dyspraxia

When poor muscle tone in the mouth affects the coordination of the speech apparatus, the child is said to have verbal dyspraxia. Children who have verbal dyspraxia are usually late talkers. Their speech development is late and they may not use words till the age of three and stay with single words after that, for quite some time to come.

It becomes very frustrating for the child to not be understood because of poor articulation and incomprehensible speech. It must be remembered that these children are either average or above average in their IQ so the need to communicate is a very strong one.

Some of the signs of verbal dyspraxia are:

- Difficulty in making speech sounds
- Difficulty in sequencing sounds to make the word
- Difficulty in producing a
- sustained quality of speech.
- Difficulty in controlling loudness and rhythm of speech.

Imagine the condition of a child, who wants to say something, knows what he wants to say and yet cannot say it. Parent and teacher alike, must strive to help the dyspraxic child reach a level of comfort emotionally, academically and socially.

How can parents and teachers help?

The sensitive parent/teacher can be a great support to the child just by recognizing the condition and deciding to do whatever can be done to assist the child.

Each part of the day needs to be addressed separately and there needs to be an understanding of the kind of difficulty the child is likely to face.

Creating a stack of 'Checklist ' cards, for different times of the day is very helpful.

Using colours to help identification of pencil boxes, books, water bottles, and raincoats is a good strategy to enable children to look after their things. Such articles could be marked with a red or blue strip so that the children can identify their belongings immediately.

The dyspraxic child has a difficulty in understanding the concept of time. He does not understand what is meant when he is told, "We are leaving the house in 10 minutes". While he understands the sentence, he cannot understand the concept of 'ten minutes' and is not able to pace himself for leaving the house in that much of time. As a result the parent thinks that the child has blatantly disregarded instructions. The child receives a scolding for not doing what he was told. All the while the child is trying to figure out what is it that he has done wrong. To sense that he has made a mistake that he is not in control of, creates an extremely negative impact on the child.

To help the child understand the passage of 'ten minutes' it could be related to a daily activity that the child does. If he takes approximately

ten minutes to have breakfast, the child could be told, “Ten minutes is the amount of time it takes you to have breakfast”.

Here are some ways to help the dyspraxic child in different environments.

At home:

1. Encourage the child to get up early since there will be a few things that are bound to go wrong and time will be needed to sort them out. A day begun in a rush will cause confusion and the rest of the day will then go badly.

2. A list of routines will help the child to get organised. These routines can be written on cards and placed in strategic areas for the child. Here is an example:

WAKE UP LIST

a. Toilet
b. Brush teeth
c. Take a bath
d. Get dressed
e. Hang out towel
f. Put dirty clothes in laundry basket
g. Pack schoolbag
h. Tidy room
i. Go for breakfast
j. Leave for school

3. Have a large clock in a prominent place. Make sure he is able to tell the time though and do not use a digital clock. The child may want to see how long it takes him to complete an activity. A non-digital clock will show him this in two ways – by the time

elapsed (e.g. 8.00 a.m. to 8.20 a.m.) and by the visual sweep of the minute hand.

4. Devise strategies so that the dyspraxic child can be as independent as possible:

- Use plastic cups or mugs
- Do not fill too much of juice/ milk/ water in the cup or mug otherwise the child may spill the liquid.
- Cut and serve whatever is necessary so that there are no accidents with the knife.

Getting Ready for School:

1. A similar list can be created for the child going to school.

LEAVING FOR SCHOOL LIST

Schoolbag

Pencil Box

Lunch Box

Homework

Books

Water Bottle

2. Schoolbags should be distinct so that there is no confusion in identification. There must be a label carrying the name and telephone number of the child. So also with water bottles, raincoats and any other objects that the child may being to school.
3. Demarcate areas in the schoolbag and stick to the organisation e.g. the front pocket will only carry the lunchbox. The pocket at the side will hold the pencil box etc.

4. Velcro straps and zips as fasteners for the schoolbag are preferable.
5. If the pencil case is a hard case and is transparent, it would enable the child to see through the check whether all instruments are there.
6. For recess or for lunch make sure that the child can easily open the snack packets or wrappers because some packaging is very difficult to handle.
7. The water bottle should have a firm base and a straw like attachment to suck out the juice or the water. The bottle itself should have a wide base and a firm body otherwise the child may accidentally tilt or squeeze the bottle dropping the contents.
8. Carrying wet wipes would enable the child to clean his/her hands whenever they get dirty which could be quite frequent.

At School

The child should have a clear view of the board. The environment should be free from distracting elements. As far as possible, the child should be made to sit away from the doors and windows. It would be an advantage for the child to be seated at a little distance from others. Very often, a dyspraxic child cannot bear to have his/her personal space invaded.

The desks and chairs that the child uses should be comfortable and uncomplicated. There must be a step below the desk so that the child can rest his legs on it.

For writing purposes, an inclined board is necessary. It eases tracking from the board to the notebook and eases pressure on the wrist while writing.

Wring instruments need to be thick and smooth. Pens with a rubber grip work just fine. Fountain pens may create a mess in which case, gel pens may be a good substitute.

Mechanical pencils with 0.5 or 0.7 leads should be avoided totally; in fact pencils need to be sturdy since the child may have a tendency to press hard while writing.

The teacher must make sure that the child does not receive glaring lights on his work since that can aggravate visual difficulties.

Colour coding helps the dyspraxic child to a great extent. Notebooks could use a blue label on the side and textbooks could use a red label.

As far as teaching is concerned, the child's preferred learning style should be identified and used. The student may be a visual or a 'hands on' learner or he may prefer to 'listen' to instructions.

Some children find music playing the background very soothing. The teacher may experiment by using soft instrumental classical music. There may be some children who find this distracting so the teacher has to be vigilant.

Only essential homework should be given since the child will have to put in a greater physical effort than other children.

Always provide a recap before starting a lesson. Children with dyspraxia have short-term memory problems and need repetitive learning.

In providing instructions or commenting on work produced, it is necessary to remember that these children take things literally. They do not understand sarcasm and taunts.

CHAPTER 17

Gifted Children & Learning Difficulties

During one of my visits to a school, an eleven-year old girl who was being tested for leaning difficulties was asked to talk about the function of a bucket. She said “We use a bucket because we cannot hold water in our hands because of the gaps between our fingers.

Another nine-year old girl was being tested for her numerical skills. She was asked to count the number of beads in the box. The little girl started counting, “six..twelve… eighteen… twenty-four…”. She effortlessly counted the beads using groups of six and was completely unaware of her skill in doing so.

Yet another eleven year old was asked to put two shapes together that would give her the final shape of a rectangle. Her choices were 2 and five instead of the very obvious 2 and 4.

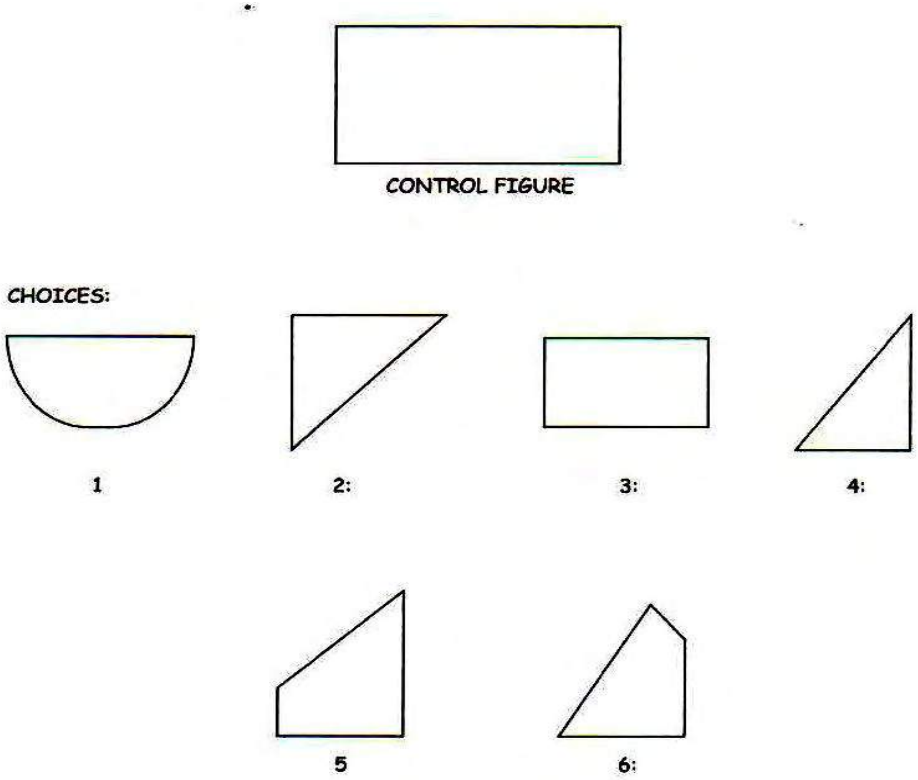

Fig.5: Visual Closure

Among the vast number of children that I have assessed for learning disabilities, only two have responded in this manner decribed above.

There are several strange stories, which illustrate the fact that gifted children often think differently from other children their age. In fact one of the most common experiences that teachers and parents face with gifted children is their unique way of thinking.

On one hand, this is a delightful trait yet on the other hand the ability to think differently could be a source of problems between the gifted child and his environment since these children make long stretching lateral connections and they see patterns in diverse experiences, all of which can be difficult for the average person to understand.

Raising and nurturing a gifted child is a task that is all at once exciting yet daunting. It would have been very well if these complicated individuals came with instruction manuals!

Giftedness can be seen as a manner of development that is asynchronous. The cognitive abilities of the child and the heightened intensity together contribute to awareness and understanding that is different from most children of the same age group.

Consider the case of the little girl who questioned her mother about the death of her dog. Her pet dog had died without any indication of being ill. The mother, sensing that the child was upset reassured her saying that they would start looking for another pet soon. Somehow, this did not reassure the little girl. She appeared to sink into depression. The child seemed to cling to her mother at all times and showed immense reluctance to go to school.

The mother thought that her daughter would get over her pet's death in a short while but that did not happen. One evening the worried mother sat her daughter down and discovered that the little girl had realised that anybody, even her parents could die without any signs or symptoms. The child was unable to deal with the new feeling of insecurity that she was experiencing. Unlike another child her age who would have mourned the death of a pet and gotten over it, this little girl was able to apply the information to different possible situations.

This was a clear example of how advanced cognition made the child aware of information that she was not emotionally ready to handle.

Our schools and colleges today cater largely to the regular child in order to achieve some form of uniformity. This is seen as necessary in order to run the educational institutions as smoothly and firmly as possible. In

trying to create this uniformity, gifted children are urged towards modifying their behaviour to fit in with the larger crowd. This hampers the creativity and spontaneity of the gifted student who in any case is under pressure because of his giftedness.

Truly, society can be very cruel and unaccepting of the gifted child.

Even though much effort has been put in to understand the development of the child's mind, services to the gifted and talented child are probably one of the lowest priorities in our society.

This is probably fuelled by the misconception that gifted children need no guidance; they are able to find their own way.

What is a gifted child? Does being gifted mean that the child has the ability to think faster or think differently?

In 1926, graham Wallas, the noted early twentieth century psychologist , in his book **"The Art of Thought"** tried to explain the unique aspect of the mental processes of the gifted. According to him, there were four stages to the working of the gifted mind:

1. Preparation - defining the problem.
2. Incubation - the unconscious shaping of an idea
3. Illumination - the moment of insight.
4. Verification - testing and verifying the solution.

The Marland Report

In 1972, the United States secretary of Education S.P. Marland, Jr. presented a report to Congress on the Gifted and Talented. This document has been hailed as a landmark research document and is currently used as a reference where gifted children are concerned. The Marland report states:

"Gifted and talented children are those identified by professionally qualified persons who, by virtue of outstanding abilities, are capable of

high performance. These are children who require differentiated educational programs and services beyond those normally provided by the regular school program in order to realize their contribution to self and society".

Further, the report identifies key areas in which gifted children show a high degree of proficiency. It goes on to say:

"Children capable of high performance include those with demonstrated achievement and/or potential in any of the following areas:

1. General intellectual ability
2. Specific academic aptitude
3. Creative or productive thinking
4. Leadership ability
5. Visual and performing arts
6. Psychomotor ability"

Most programmes for the gifted, focus on the first two categories of proficiency.

Historically, giftedness has been closely linked with the concept of genius. This association began around the turn of the century when psychologists developed tests that were designed to measure intelligence. People who scored on the low end of the scale were labelled retarded and those who scored on the high end were considered geniuses. Typically, the gifted child has mental abilities that put him in the top 2.5 to 3 per cent of the population.

Though test scores are not the only way of measuring giftedness, we will use it here to explain the phenomenon of giftedness in the general population.

An intelligence quotient (IQ) of 100 is considered average. The range from 90 to 110 is considered normal. A range from 110-119 is considered

“High Average”. It is a range where children are fast learners. 120-129 are the superior to gifted individuals. The range of 130-139 consists of gifted to highly gifted individuals. Those bearing an IQ of 140 and above are exceptionally gifted individuals or geniuses.

The use of intelligence tests as the single measure of giftedness has been greatly criticized in recent years, primarily because the tests are often culturally and verbally biased and with the theory of multiple intelligences many researchers and educators have come to believe that giftedness is more than high intellectual ability; it also includes creativity, memory, motivation, physical dexterity, social adeptness, and aesthetic sensitivity.

Multiple Intelligences

In 1983, Dr Howard Gardner, professor of education at Harvard University, developed the theory of multiple intelligences. The theory says that human intelligence is far too diverse and varied to be measured by a single instrument like IQ testing. Dr Gardner then spoke of seven different kinds of intelligences and has recently added two more. Intelligence in an individual can be any combination of these nine intelligences. These intelligences are:

1. **Linguistic intelligence** – those who learn through language, are ‘word smart’ like poets, authors, editors.
2. **Logical-mathematical intelligence** – those who deal with numbers comfortably and have good reasoning skills. They are bankers, accountants and economists among others.
3. **Spatial intelligence** – those who are ‘visual’. They are good with pictures, colour, art, form and design like artists and architects.

4. **Kinaesthetic (whole body) intelligence** – those who have good 'body language' and learn through it. They are good in athletics, dancing and acting like gymnasts, dancers, actors, and surgeons.
5. **Musical intelligence** – those who are good with composing and understanding music and can learn through rhythm, dance and melodies like composers and musicians.
6. **Interpersonal intelligence** – those who can relate to and understand others well like counsellors, psychologists, teachers, actors and human resource managers.
7. **Intrapersonal intelligence** – those who are able to look inwards and introspect and learn from what they see. Such people are philosophers, psychotherapists, spiritual guides and serious thinkers.
8. **Naturalist intelligence** – those who can understand with and learn from the environment. Recognising patterns and interacting with wild life like biologists and ecologists.
9. **Existential intelligence** – A talent for handling questions related to the meaning of life and death and sensitivity to spiritual dimensions.

Gifted learners differ in their intellectual and academic achievement. It is extremely important to realise that these children also differ in their social and emotional needs. The general belief that a gifted child will make it by himself is highly unacceptable.

Counsellors, teachers and parents should be aware of the fact that though a child may be gifted, he certainly has special needs and for the child to exercise his full potential, his special needs must be catered to.

Gifted children often exhibit intense feelings and emotions. They swing between highs and lows much more frequently than most other children. Their approach to different issues indicates levels of maturity beyond their years. Gifted children show an intense curiosity about whichever subject fascinates them. The subject of fascination may change with time but the curiosity and fascination is always constant. They seek perfection in everything they do and this makes them extremely self-critical. Such children also have heightened issues of morality, justice and spirituality.

If gifted children are not understood or if we are not tuned into some key warning signals, these children can be at higher risk for academic underachievement, social alienation and a host of associated emotional and psychological concerns. The child therefore, who could have contributed very positively to his environment, turns into a liability.

It is the responsibility of society to prevent this from happening.

Do the Gifted find their own way?

Most of us have a very set idea regarding gifted children. Even as adults, we tend to think of highly intelligent and gifted adults with a degree of awe. What we fail to understand is that the gifted individual has needs and shortcomings too – like any other human being.

Since most people assume that gifted children have everything going their way, they overlook the fact that these children experience stress and need help in dealing with it. Sometimes, these shortcomings can lead to aberrations in the personality of the individual and can even mask the gifted aspect of the person.

Hierarchy of Needs

Abraham Maslow, a motivational psychologist developed the 'Hierarchy of Needs' a motivational model and published it in his book, 'Motivation

and Personality' (1954). This theory says that each of us is motivated by our needs. Our basic needs are inborn in us due to conditioning of the brain over thousands of years.

Maslow states that in the hierarchy of these basic needs each need has to be satisfied before addressing the next need that is, the lower order needs have to be satisfied before addressing the high order needs.

Conversely, if for some reason the initial need has not been met then the higher order needs cease to hold any meaning for us.

Maslow's Hierarchy of Needs is as follows:

1. **Biological and Physiological needs**- air, water, food, warmth, sleep, shelter.
2. **Safety needs** – protection from elements, law and order, establishment of limits.
3. **Belonging needs** – the need to belong, to a family, a group, a community and gain love and affection.
4. **Esteem needs** – self-esteem, achievement, independence.
5. **Self-Actualisation needs** – realising one's potential, the need to strive for fulfilment, independence.

How does the hierarchy of needs relate to gifted children?

No matter how gifted a child may be, if his basic needs are not met, he will not be in a position to use his giftedness to an advantage. The child's need for love, security and understanding take precedence over the utilization of his skills.

Also, different aspects of their development are asynchronous. Their chronological age, social, physical, emotional and intellectual development may all be at different levels, for example, a five year old may be able to read and comprehend a third-grade book, but may not be able to write legibly.

Another truth is that the gifted child may be intellectually years ahead of their age mates and they get bored very easily which again results in low achievement.

Such children are natural problem solvers. They work best when the problem is open ended and multi disciplinary while their thinking could very well be so abstract and complex that they would need help with concrete problems and test taking skills.

A gifted learner differs in their social and emotional development as they do in their intellectual development. Teachers, parents and counsellors need to be aware of this. Gifted children often exhibit intense feelings and emotions. They have an advanced maturity and an intense curiosity to know more about what they are interested in, at that particular moment. They have heightened concerns about issues of morality, justice and spirituality. It may be very possible that they view these issues in a very different manner than the rest of the population.

If gifted children are misunderstood and if warning signals are overlooked or go unrecognised, these children would eventually fall into a high risk category for academic underachievement, aberrations in personality that could lead to social alienation and a whole host of associated problems.

Academically, gifted children have very large vocabularies and complex sentence structures. They comprehend the finer nuances of language with ease. When a subject interests them, they have long attention spans and persist in achieving what they set out to do. The converse is true for areas that do not interest them.

Gifted children are intense and extremely curious and tend to ask unending questions. Rather than take somebody's word for something, they are likely to experiment in order to find out things for themselves. The tendency is to do things in different and unusual ways.

Children who are gifted learn basic skills very quickly and do not require as much practice as their peers do. They may have an excellent sense of humour.

Gifted children have heightened degrees of sensitivity whereby they can get irritated by the tag at the back of a shirt or blouse. They also have a vivid imagination, which accounts for intense dreams. Though they need less sleep, when they do, their sleep is very deep.

The traits that gifted children display often leads to problems while dealing with daily activities. Let us examine some of them:

1. **Trait**: Acquires and retains information quickly.
   Issue: Impatient with slowness of others, has a problem with routine work, may make concepts unduly complex and resists the mastering of foundation skills because of sheer lack of challenge.
2. **Trait** : Inquisitive attitude and intellectual curiosity, searching for significance most of the time.
   Issue: Asks embarrassing and inappropriate questions, does not wish to be directed and expects others to have the same deep interest in fields of his interest.
3. **Trait**: Can see cause – effect relationships.

Issue: Has difficulty in accepting illogical processes like feelings, traditions or matters of faith.

4. **Trait** : Love of truth, equity and fair play.

   Issue :Difficulty with being practical and understanding shades of grey. Everything is seen in two extreme degrees.

5. **Trait :**Enjoys organising things and people into structure and order.

   Issue **:**Constructs complicated rules and systems and expects everyone to understand them with the same amount of ease. Failure on the part of others to do so can be very upsetting.

6. **Trait:** Has a large vocabulary and broad information in a number of advanced areas.

   Issue**:** Uses verbal capacity to cover up situations. Others view the child as a 'know-it-all'.

7. **Trait**: Is very self critical, demands a high degree of perfection from self and constantly evaluates others.

   Issue**:** Perfectionist-tends to be intolerant of others' shortcomings.

8. **Trait**: Keen observer; willing to consider the unusual; open to new experiences.

   Issue: Overly intense focus; occasional gullibility.

9. **Trait**: Sensitivity, empathy for others; desire to be accepted by others.

   Issue: Sensitivity to criticism or peer rejection; expects others to have similar values; need for success and recognition; may feel different and alienated.

10. **Trait:** High energy, alert, eager, periods of intense effort.

***Issue*:** Frustration with inactivity; eagerness may disrupt others' schedules, needs continual stimulation, may be seen as hyperactive.

11. **Trait**: Diverse interests and abilities; versatile.

    Issue : appear scattered and disorganized; frustrations over lack of time; others may expect continual competence.

12. **Trait**: Strong sense of humour.

    Issue: Sees absurdities of situations; humour may not be understood by peers; may become the "class clown" to gain attention.

Problems associated with Giftedness

Why is the Gifted Child being considered in a book about Learning Disabilities? The answer should be evident by the end of the chapter!

Who are the gifted children? While the IQ score is one way of identifying a gifted child, it is by no means an infallible method. School achievement, creative behaviour, parent and teacher evaluation need to be taken into consideration.

Also, measures of mental ability like IQ are not absolute. They may vary from one testing session to the other by as much as 20 points. Factors that would influence this variance in scores would be; rapport with the psychologist, the child's general disposition at the time of testing, distracting factors like noise or conversation in the vicinity, etc.

It is important to remember that in attempting to identify gifted children, one must be aware that a high IQ does not necessarily mean a high degree of achievement. Very often there is a significant discrepancy between the intellectual functioning of the child and academic achievement. **This is also a characteristic of the learning disabled child.**

Giftedness and learning disabilities frequently go hand to hand. What does happen is the learning disability masks the giftedness of the child and it becomes hard to recognise the giftedness,. The converse is just as true – giftedness can mask a learning disability and parents and teachers can be at a complete loss to explain the low academic achievement of an otherwise bright child. This, along with the lack of awareness among professionals, accounts for the low recognition of the gifted child. Let us examine the following list:

1. **Einstein** was four years old before he could speak and seven before he could read.
2. **Isaac Newton** did poorly in grade school.
3. When **Thomas Edison** was a boy, his teachers told him he was too stupid to learn anything.
4. **F.W. Woolworth** got a job in a dry goods store when he was 21. But his employers would not let him wait on a customer because he "Didn't have enough sense"
5. A newspaper editor fired **Walt Disney** because he had "No good ideas".
6. **Enrico Caruso's** music teacher told "You can't sing, you have no voice at all".
7. **Leo Tolstoy** flunked out of college.
8. **Wernher Von Braun** flunked 9th grade algebra.
9. **Louis Pasteur** was rated as mediocre in chemistry when he attended the Royal College.
10. **Abraham Lincoln** entered The Black Hawk War as a captain and came out a private.
11. **Winston Churchill** failed the sixth grade.

F.W. Woolworth from New York was the creator of a chain of retail stores. When he died he left behind a chain of 1000 retail stores.

Enrico Caruso went on to become a world famous tenor; one of his most famous performances was “Fedora”.

Wernher (Verner) Von Braun grew up to be a rocket scientist. As head of NASA’s Marshall Space Flight Centre, he developed the Saturn V booster rocket, which helped to land the first men on the moon in July 1969.

Today, one is aware of the enormous contribution these gifted people have made to society, in spite of not being recognised earlier on in their lives.

The question that comes to mind here is; how many children who have the potential to reach such outstanding heights, are being ignored or overlooked because of the apathy/ ignorance/ indifference of adults responsible for their education?

<u>Myths surrounding the Gifted Child</u>:

- **They don’t need any guidance, they will find their own way** – This is the most popular myth and probably the greatest misconception that people have about gifted children.
  Nimit was a highly gifted student studying in grade six. He was brilliant in his academics and finished far ahead of the class in any assignment. He knew a lot about technical matters and about his environment.

He was a whiz at math. Whenever he started speaking the class chanted, ‘Scientist, scientist’, Nimit would go red in the face and stop speaking. The children in his class treated him differently. The teachers used to praise his academic capabilities and at the same time rebuke him when he interrupted a class discussion with a seemingly weird idea.

What Nimit faced was a disconnect between his intellectual development and his emotional one. While he was intellectually way ahead of his peer group, emotionally he was just the same. He wanted to be accepted, wanted to play, pull tricks, have fun but the others saw him as some kind of a strange person. They did not know how to deal with him so they kept away.

Nimit’s parents were very proud of the fact that their son was doing so well in his studies though they had no time to listen to his thoughts and ideas. He kept getting into trouble because he appeared to disregard most of what his parents had to say. His room was messy and he had very few friends. His parents kept urging him to behave like a regular eleven year old was expected to. They were ashamed of his social inadequacies and were only concerned with what they considered appropriate behaviour. Nimit rarely received any assistance with his schoolwork, the way his sister did. All this left Nimit a very confused and lonely child and as he went into higher grades, his academic performance started suffering. When that happened, he was labelled ‘lazy’.

Nimit suffered due to lack of awareness and understanding on the part of the adults around him.

- **Gifted children do not need any help to succeed** - As in Nimit's case, it is clear that these children have special needs and their social needs require attention.
- **They should be valued primarily for their brainpower** – while everbody was proud of the fact that Nimit was a clever child, nobody really stopped to find out about his emotional stability. Nimit was slowly buckling under the pressure of sky-high expectations.
- **They are more stable and emotionally mature** – Nimit was every bit an eleven year old child, emotionally and socially in fact more precariously so since he was dealing with an aspect of his development that set him apart from others.

Gifted children are very intense in their feelings, views and behaviour. Their thinking is divergent and they view situations in non-traditional ways. The thoughts and ideas in the mind of the gifted child are far more interesting than their environment. Many times, gifted children have an imaginary playmate that they talk to and share their innermost thoughts with.

Children who are gifted see the world differently and just like most other children, they believe that everybody sees the world the way they do. When they discover that other children do not share their perspective and that others are not as curious as they are, it comes as a surprise. They are also astonished to find that others view them differently.

Gifted children not only see things differently, they do things in different ways and can see many possibilities and alternatives within a situation.

A little girl of about five years was given a lump of clay during clay modelling class. She was asked to turn the lump of clay into a model of something she had seen. The little girl whiled away her time daydreaming through the class. When it was time to hand in her work, all she had was a rounded lump of clay, with the underside flattened on the palm. When her teacher asked her what she had made, her quick reply was, “This is a sheep. The sheep is asleep so its feet and head are tucked under and can’t be seen”. The amazed teacher awarded the child points for imagination and quick thinking. The little girl did not realise the significance of her reply till she heard of this incident from her parent when she herself was an adult.

The Gifted child and Learning Disabilities

How is it possible for a child to learn and yet not learn at the same time? Why do we see children who languish in their schoolwork yet spend a great deal of time and effort on demanding and creative activities out of school? This is the typical behaviour of a child who is gifted yet has a learning difficulty.

For many people, learning disabilities and giftedness are at the opposite ends of a learning continuum. The uneasiness in accepting this apparent contraction lies in faulty and incomplete understanding.

The view that giftedness is the ability to achieve outstandingly in all activities is an inappropriate one. It is much like saying that there is only one dimension to intelligence – that a child who is good at math will automatically be good at language, art, music, athletics, etc.

In fact, we do know that the child who excels at math may do very poorly in language at the same time. This is the situation with a child who is gifted yet learning disabled.

According to Baum and Owen, 1958; Fox, Brody and Tobin, 1983 and Whitmore and Maker, 1985, there have been recent advances in the fields of giftedness and learning disabilities, which suggests that both sets of behaviour can exist simultaneously.

As mentioned earlier, the children who are both gifted and learning disabled display remarkable talents and strengths in some areas and disabling weaknesses in others. As such, these children can be divided into three distinguishing profiles:

1. The Identified Gifted student with Subtle Learning Disabilities.
2. The Unidentified Student who is Gifted and has Learning Disabilities.
3. The Identified Learning Disabled student who is also Gifted.

Let us consider these categories one by one.

The Identified Gifted Student with Subtle Learning Disabilities –

This child is easily identified as a gifted student because of a high degree of achievement or a high IQ score. However, as the child grows older, the discrepancy between expected and actual performance widens. While the child may have very good verbal skills, written work may be very poor especially in terms of spelling, handwriting and page organisation. This difficulty then leads to an increased resistance towards writing things down. The child prefers to commit information to memory. This would lead to the student constantly forgetting things. He gets disorganised. This adds to the pressure that he is already facing and his work suffers and frustrations build.

The child keeps hearing that he needs to put in an increased effort. This becomes a demand of the parents and teachers because they can see the potential present and since the academic output does not

match the child's potential, they assume that the student is just not trying whilst the real issue may be that the child simply does not know how to try harder. The fact that his difficulty has remained unnoticed creates an impediment to the achievement of full potential. From the perspective of the teachers and parents, this child who is gifted is functioning at grade level and therefore needs no assistance. It would take an enlightened adult to recognize the fact that this child could achieve a far degree more than grade level if his special need was addressed and compensation techniques taught.

It is important to remember however, that a learning difficulty is not the only cause of a discrepancy between potential and achievement. There could be a number of reasons why bright children do badly in schoolwork. Maybe expectations are unrealistic. Social and emotional issues can interfere with learning. Motivation, interest and specific attitudes can influence the effort a child is willing to put in, for a given task.

Also, very interestingly, a bright child simply may not have learned how to study because during the primary years school would have been easy and success would have required minimal effort.

The Unidentified Student – The student in this group is not noticed for either behaviour because he uses his giftedness to overcome his learning difficulty.

Consider the case of a child who has a poor visual memory for words. While reading a paragraph, he comes across a sentence that reads, "Tim has a house with a red roof". The student reads it as, "Tim has a home with a red roof".

What the student has done is, using contextual clues; he has substituted the word 'home' for 'house', which he found difficult to

recognize when he encountered it. The ability to use contextual clues is a skill that many children with poor visual recall use to overcome reading problems. An attentive teacher or a parent would recognize this skill and help the child to develop it further as well as use the skill to ease out reading difficulties.

A child who falls in the category of the unidentified student usually goes through life without knowing that he is gifted or has a learning disability The disability is frequently discovered in college or during adulthood when the student reads or hears about dyslexia and other learning difficulties from his peer group and other sources.

The Identified Learning Disabled Student who is also Gifted–The student under this category is first noticed because of what he cannot do rather than because of the talent and ability that he might demonstrate.

This is probably the most serious of all three categories because of the implicit message that accompanies the fact that the child is learning disabled. The general view is that something is wrong with the student and it has to be fixed before anything else can be done. The collective focus of the parents, teachers and counsellor is on the problem rather than the strength.

Since students in this category are bright and sensitive, they are acutely aware of their difficulty in learning. Besides this, they have a tendency to generalize their feelings of academic underachievement to an overall sense of inadequacy.

Research shows that it is this category of children who are most disruptive in school. They withdraw into shells become attention seekers or class clowns or complain of headaches and stomach aches and they use their creative abilities to avoid doing school work.

Strategies that can be used with the gifted student with learning disabilities

1. Provide information using multi sensory techniques. This will be a big help to those students who have a difficulty in reading. Photographs, film clips, interviews, experiments are some of the methods that can be used to gain information about a topic that is being taught in class.
2. Use mind-mapping techniques for the student who has a difficulty in transferring thoughts and ideas on paper. A mind map will help generate the outline of the topic under discussion. Structuring the essay becomes much easier using the mind map.
3. Use technology wherever possible. Allow the use of calculators and word processors.

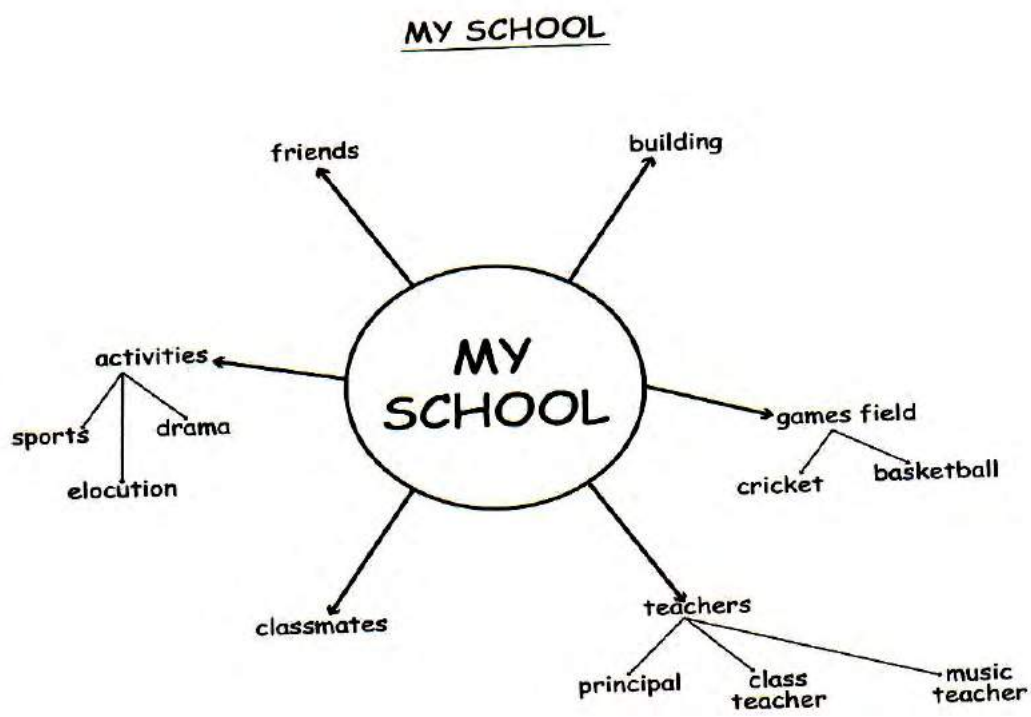

Fig.6: Mind Map

A student can prepare a report with ease on a word processor since the task of composing and recording which is performed simultaneously when writing, gets separated into two different tasks when using the word processor. This eases a lot of stress for the student. Allow the use of tape recorders to record a lecture.

4. Let the student use speeches, slides, posters, films, etc. to present ideas rather than writing, in order to communicate ideas.
5. Use group therapy to encourage children with varied strengths and weaknesses share ideas and strategies that ease learning.

Understanding the Gifted Child with Learning Disabilities

The gifted/ learning-disabled student is most often a child who functions at a high intellectual level, but who has a "specific academic deficit coupled with an executive processing deficit" (Van Tassel-Baska, 1991, p.246). Such specific deficits often involve memory and perception resulting in weaknesses in reading, mathematics, or writing (Baum, 1984).

Very often, such children are not identified as either gifted or learning disabled because strengths are being used to compensate for weaknesses.

There are limitations in testing these children because again, conditions of high intellectual functioning and specific processing deficits tend to offset each other. As a result the test scores are depressed and do not give the examiner a true picture.

Since the gifted learning-disabled child demonstrates uneven behaviour patterns, which include aggression, withdrawal and frustration, these characteristics cause the child to have a poor relationship with the peer group. This again results in further negative behaviour and it can become quite a downward spiral.

The intellectual strengths would include problem solving skills, abstract reasoning, creative strengths and superior oral abilities while the deficits would be poor memory skills, visual and auditory processing and poor visual motor integration,. Gifted/learning disabled students are at great risk for developing negative self-concepts. Though they think at high levels, the inability to complete simple tasks successfully, create a high degree of frustration. Their intellectual abilities allow them to see clearly what they perceive as failures. Being perfectionists and being able to analyse in a critical and evaluative manner, they constantly compare their abilities to their peers and suffer feelings of guilt as a result of teachers and parents who admonish them to try harder.

Gifted/ learning disabled students need opportunities to interact and work with other students of similar skills. Working in a group meant only for children with learning disabilities may not provide opportunities for high-level thinking and interaction. Placement with gifted students may intensify negative feelings if class members work together in areas in which the gifted/ learning-disabled child is deficient. Within the context of a regular class, with the addition of pull-out classes to meet a wide variety of specific needs, these students must be helped to develop abilities, skills, feelings of self-efficacy and positive self concepts. They should be able to proudly demonstrate how well a student learns and achieves when he/she is gifted and learning disabled.

Intuition

A child with a learning disability like dyslexia frequently thinks much faster than other children. That is because he thinks in pictures. While a verbal thinker has between two to five thoughts per second, the

picture thinker or non-verbal thinker can have thirty-two thoughts per second. The verbal thinker conceptualises each word involved in a thought while the non-verbal thinker conceptualises each picture. Now if “One picture is equal to a thousand words”, that would be quite a task for the non-verbal thinker to verbally explain what he had been thinking about.

Non-verbal thinking is at least 400 times faster than verbal thinking, The drawback is that the person may not be aware of individual pictures as they occur but would be conscious of the overall outcome of the thought. This is similar to watching television where 25 image frames are flashed at the viewer in one second. This tricks the eye into seeing the images as one smooth motion.

This when the parent or teacher encounters a child who know the answer to a sum but cannot explain how he got it. It also accounts for those ‘flashbulb’ ideas that seem to be the solution for critical issues.

Intuitive thinking is the result of such processes. The child is not aware of the thought process as it happens but becomes aware of the product of the thought process as soon as it occurs.

Einstein’s theory of relativity was supposed to have come to him in a vision when he imagined what it might be to travel through the universe on a beam of light. It took several books to explain what Einstein’s momentary vision may have been.

Non-verbal thinkers are prone to daydreaming and parents and teachers are very critical of daydreaming, which they shouldn’t be since it is the process of a highly creative mind.

The following table lists typical signs of giftedness and learning disabilities

Signs of Giftedness	**Signs of Learning disabilities**
Excellent long-term memory	Poor short-term memory
Extensive vocabulary	Speaking vocabulary more sophisticated than written vocabulary
Excels in reading comprehension	Struggles with decoding words
Excels in mathematical reasoning	Does poorly at computation
Advanced verbal skills in discussions	Refuses to do written work
Facile with computers	Handwriting is illegible
Grasps abstract concepts	Has great difficulty with spelling and phonics
Performs better with more challenging work	Struggles with easy, sequential material
Thrives on complexity	Difficulty with rote memorization
Highly creative, imaginative	Often inattentive in class
Reasons well	Emotions can overpower reasoning
Is a keen observer	Poor auditory memory
May have acute hearing	Poor listening skills
Has very interesting ideas	Weak in language mechanics, such as grammer, punctuation, capitalization, etc.
Extremely curious; asks many questions	May be unable to learn unless interested
Has high degree of energy	Performs poorly on timed tests
Perspective and insightful	Hopelessly disorganised

(seems wise)	
Excellent sense of humour	Finds clever ways to avoid weak areas
May excel at art, science, geometry, mechanics, technology, or music	May fail at foreign languages and subjects emphasizing audition, sequencing, memory

(Ref: Linda Silverman, PhD – director, Gifted Development Centre, Denver, Colarado, USA).

What are the needs of the gifted child?

The child needs challenge. He needs his mind to be stretched and needs to be given opportunities to work both independently and in a group.

These children need to develop a positive self-concept and they need help in gaining a feeling of acceptance by others. They also need to feel valued for themselves, not for their accomplishments.

Communication skills need to be sharpened. The children need to be taught how to organize ideas and speak about their feelings to their parents, teachers or their peer group.

They need to be encouraged to write since writing develops organisational skills and frames intellectual content.

Gifted children are extremely self-critical. They set extremely high standards for themselves therefore they need to recognize and come to terms with their strengths and weaknesses.

What are the needs of the child who is learning disabled?

The child needs to learn at a level that challenges his intellect yet takes into consideration his specific difficulty, otherwise he gets bored with

his lessons. He needs to be assisted in work that targets his difficulty and needs to be given an independent platform when he works in an area of his expertise.

The child needs to develop a good sense of self-esteem and he needs to know that his peers accept him for whatever he is.

The child has to be encouraged to read and write since frequently these are the areas of difficulty. In cases where organizational abilities are weak, they need to learn how to sequence and organize thoughts, ideas, routines, etc.

Children with learning disabilities very often perceive themselves as different. As a result they try very hard to ‘fit in’ with what they feel is the normal crowd. They need to be taught how to use their strengths to help them with their weaknesses.

The similarity between the needs of the gifted child and the child with learning disabilities is striking.

CHAPTER 18

From The Heart

Today, society is cognizant of the fact that children are not homogenous in their learning endeavours. The question is then, what kind of a learning system can we generate that will cover most, if not all aspects of learning?

The term “Learning Disability” is relevant only because of rigidities and biases in our educational framework. Otherwise, why should we call a child who learns better through a channel other than visual, “disabled”? If a student can answer questions orally, why do we say he has a learning disability because he cannot present a neatly written sequence of questions and answers?

The appropriate term for such children would then be “Differently Abled”. I recall working with a nine year old girl who could not remember how to spell certain sight words. Her teacher was quite upset with her and the little girl herself hid behind a façade of nonchalance – a “devil may care” attitude. One day we were at the table, trying to work on some sight words. Th child simply could not retain the spelling of the word “believe”. I tried different techniques and nothing worked. Finally, disgusted with the entire process, the little girl pushed away from the table, got up and started walking around, bouncing her ball. I tried to convince her to sit down and attempt the word one more time. She refused to sit down and instead asked me to spell the word out for her.

I said, “B”

She bounced her ball and on the bounce she called out, “B”

I said, “E”

She bounced the ball again and on the second bounce repeated, “E”.

I said, “L”
In this manner, she bounced her ball every time she had to repeat a letter. At the end of it, she had learnt how to spell the word! Both of us were elated at what had been achieved and absolutely astounded at the manner in which it had been achieved. Like children with a new toy, we used this technique with four more words and it worked. Today, nine years after this incident, she still spells “BELIEVE” with unbelievable ease.

The very basis of what we call a “Learning Disability” is in the fact that our schooling system caters to learning through the “Three R’s – Reading, “Riting and “Rithmetic”. The evolution in technology plays a major role in making objects like television, phones and computers a significant part of our lives. The question that arises is, do we need to redefine the importance of the Three R’s?

Children are naturally very creative and this creativity has to be given a platform so that it can be aired and expressed. We must recognise that every child is unique. One wonders whether grouping children together on a chronological basis is really the right thing to do. If it is not, then what are the alternatives?
There is also the issue of inclusion. Going to a special school deprives the child of the variety in stimulation that he may receive in a mainstream school whereas staying in a mainstream school may deprive the child of the attention he needs.
What would be in the best interest of the child, staying in a mainstream school or going to a special school?

Also, are we able to give students the opportunity to think and explore? Our responsibility is not merely to provide access to knowledge. We must

provide a system that encourages children to think, wonder and question which in turn will produce creative and thinking adults**. We need to focus and facilitate the development of strengths in children rather than manage the weaknesses.**

As George Bernard Shaw said, "What we want to see is the child in pursuit of knowledge, not knowledge in pursuit of the child".

Childhood giftedness rises beyond the materialistic goals of large salaries, big houses and cars. Such children are naturally introspective and seek to deepen their awareness about themselves and others through which they develop compassion and understanding towards other living beings and develop a strong value system. Their quest for greater challenges goes on….

Voices

I have drawn some of these comments from written testimonials given to me by adults and children. The other comments are reactions from children and parents in different situations. The time frame is with reference to when the comment was made.

1) **This student has dyslexia and dyspraxia**. We worked together till he was 16 years old. Today he is a full fledged engineer, successful and coping very well. He is emotionally very well adjusted and in constant touch with me.

   "You always posed questions unconsciously ……. You gave me a different way of looking at English, as a language and not a drag or load. You taught me something that not only helped me but also made me grow….. if a person asked me who are the people you admire, I would put your name on the top 8."

2) **This young student** has learning disabilities that once interfered with her reading and writing. She is appearing for her board examination now and plans to take up the sciences for further study. When she was 12 years old, she wrote to me,

   "I wouldn't be able to write any of this without you. You are the one who introduced me to English and you won't know how thankful I am to you. I am so much better in my studies and I am enjoying life".

3) **A nine year old with dyslexia,**

   "When I started your class, I could not read properly but now I can read properly. It is a lot of fun being in your class…."

4) **An eight year old with learning disabilities to her mother, after discovering that she could now read,**

"So the lady said I would never read for pleasure? I want to go and meet her now and show her the books I have read – just for fun!"

5) **Mother of a seven year old.**

   Remedial intervention was initiated when he was 5 years and 9 months old since the child displayed symptoms that put him "at risk". Later on at six and a half, he was found to have a learning difficulty but the timely remediation had worked beautifully.

   "You know, I sometimes wonder, did he ever have a difficulty at all?"

6) **Teacher of a six year old who has dyslexia, to the mother of the child,**

   "In ten years of my teaching career, I have never come across a child like her. By working with her and trying to understand her, I have learnt more in this one year than all my ten years put together".

Several students with difficulties in learning have gone on to make successful careers. One young man has become a photographer of repute. Another student has gone on to pursue a career in hotel management and hospitality. Yet another young woman has become a talented dancer.

One particular student scraped through school and got admission to the college of architecture by sheer chance. Since then he was a gold medallist through his academic career and is today an architect of resounding excellence.

Yet another student who had a miserable time in school has made a name for himself in theatre and films.

Several opportunities are available when considering the way forward. All that is needed is able guidance.

Appendix

SIGHT WORDS

(In order of decreasing frequency)

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all look is her there some out as be have go we
am then little down do can could when did what so see
not were get them like one this my would me will yes
big went are come if now long no came ask very an over
yours its ride into just blue red from good any
about around want don't how know right put too got
take where every pretty jump green four away old by their
here saw call after well think ran let help make going
sleep brown yellow five six walk two or before eat again play
who been may stop off never seven eight cold today fly
myself round tell much keep give work first try new
must start black white ten does bring goes write always drink
once soon made run gave open has find only us three our
better hold buy funny warm ate full those done use fast say
light pick hurt pull cut kind both sit which fall carry
small under read why own found wash slow hot because far live
draw clean grow best upon these sing together please thank wish
many shall laugh

Useful websites

1) Resource for information about learning disabilities, identification quizzes and remedial strategies.

2) www.ldresources.com

Information for people with learning disabilities and those who work with them.

3) www.ldonline.org

Resource on learning disabilities for parents, teachers and professionals.

4) www.schwablearning.org

A parent's guide to helping children with learning difficulties.

5) www.teachingld.org

Resource for teaching students with learning disabilities.

6) www.kidsource.com

Articles on various aspects of learning disabilities and giftedness.

7) www.ncld.org

Online resource for parents, teachers and individuals with learning disabilities.

8) www.learningdisabilities.org.uk

Provides information about learning disabilities with an aim to improve quality of life.

9) www.dislexia.learninginfo.org

All about Dyslexia

10) www.braindance.com

Work smarter, learn faster and manage information more effectively.

11) www.lessontutor.com

Printable lessons and worksheets.

12) www.moving andlearning.com

Movement and its impact on learning.

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Bela Raja is a counsellor and special educator. She has developed resource centres at various institutions in order to be able to meet the special needs of children.

Bela also trains teaching personnel in the identification and management of children with Special Needs. Her mission is to empower parents so that they can help children utilize their full potential.

Her strong conviction that children today have to be taught how to think, lends itself to the thought processes behind this book and is also reflected in her movie "Little Dreamers" which demonstrates techniques on how to help the child become a creative and powerful learner.

Bela is a member of MENSA, an international society that provides a forum for intellectual exchange among members.

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