HANDBOOK ON PRINCIPLES AND STRATEGIES FOR DIAGNOSING AND REMEDIATING LEARNING DIFFICULTIES AND DISABILITIES AT ELEMENTARY SCHOOL LEVEL

EDITED BY

DR. RAMAA S.
Reader in Special Education

REGIONAL INSTITUTE OF EDUCATION
(NATIONAL COUNCIL OF EDUCATIONAL RESEARCH AND TRAINING, NEW DELHI)
MYSORE-570 006

MARCH 2001

HOLISTIC APPROACH FOR MANAGEMENT OF LEARNING DISABILITY AND ATTENTION DEFICIT DISORDER - A CASE STUDY

DR. RAMAA S.
MRS. GOWRAMMA I.P.

I. Introduction

Children with learning disability constitute 10% of our school population. Wastage and stagnation in primary school level are common among children with learning disabilities due to lack of proper intervention strategies, though they are potential learners. The situation becomes all the more complicated if learning disability has got any associated disability. So it is necessary to understand their problems and strategies which are helpful in overcoming those problems. The case studies are useful in this direction. For the present case study, a case of learning disability associated with attention deficit disorder is taken. Understanding the problem, selecting suggested intervention strategies, implementing the strategies and finding out the effectiveness of the strategies, makes this case study.

1.1 Learning Disability

The term learning disability (LD) indicates the limitation to learn certain specific areas of academics like language, reading, writing or arithmetic. The National Joint Committee for Learning Disabilities (NJCLD, 1981) has defined learning disabilities as a generic term that refers

to a heterogeneous group of disorders manifested by significant difficulties in the acquisition and use of listening, speaking, reading, writing, reasoning or mathematical abilities. These disorders are intrinsic to the individual and presumed to be due to central nervous system dysfunction. Eventhough a learning disability may occur concomitantly with other handicapping conditions like cultural differences, insufficient or inappropriate instruction and psychological factors, it is not the direct result of those conditions or influences.

Board of the Association for Children and Adults with Learning Disabilities (ACALD, 1985) has specified following criteria for learning disabilities:

1. Specific learning disability is a chronic condition of presumed neurological origin which selectively interferes with the development, integration, and/or demonstration of verbal and/or non-verbal abilities.

2. Specific learning disabilities exists as a distinct handicapping condition in the presence of average to superior intelligence and adequate learning opportunities. The condition varies in its manifestations and in degree of severity.

3. Throughout life, the condition can affect self-esteem, education, vocation, socialization and/or daily living activities.

1.2 Behavioural Characteristics of LD

1. Abnormal activity level - Hyperactive or Hypoactive.
2. Attention problem - Short attention span and easily distractable or perseveration.
3. Motor problems - Inadequate coordination, poor tactile kinesthetic discrimination.
4. Visual perceptual problems
5. Auditory perceptual problems
6. Poor social skills
7. Poor academic achievement.

Learning disabilities sometimes have comorbid disorders like Attention Deficit Disorder (ADD), Attention Deficit Hyperactive Disorder (ADHD), conduct disorder, Phobia or Depression.

1.3 Attention Deficit Disorder (ADD)

If an individual has severe problem in attending to any task he is suspected to be having Attention Deficit Disorder (ADD). If this is associated with hyperactivity, the disorder is termed as Attention Deficit Hyperactivity Disorder (ADHD).

1.4 Behavioural Characteristics of ADD (Sandra, 1990)

1. Easily distracted by extraneous stimuli.
2. Difficulty listening and following directions.
3. Difficulty focusing and sustaining attention.
4. Difficulty concentrating and attending to task.

5. Inconsistent performance in school work - The student is consistently inconsistent.
6. Disorganized
7. Poor study skills
8. Difficulty working independently.

1.5 Prevalence of Attention Deficit Disorder

There are some studies in India, which give the prevalence of Attention Deficit Disorder. They are given below

Chawla et al. (1981)	4.67%
Oommea, Kapur and Sarmukaddam (1987)	2.5% of situational hyperactivity and 0.25% of pervasive over activity
Murthy, Chose and Varma (1974)	0.4%
Indian Council of Medical Research (1984)	9%
Ramaa, Ashok and Balachandra (1997)	0.2%

1.6 A Comprehensive Treatment Program for ADD/ADHD (Sandra, 1990)

The most effective approach is a multifaceted treatment approach which may include:

1. Behaviour modification and management at home and school.
2. Counseling Family counseling is recommended because with an ADHD child in the house, the whole family is affected.
3. Individual counseling to learn coping techniques, problem solving strategies, and how to deal with stress and self-esteem.

4. Cognitive therapy to give the child the skills to regulate his/her own behaviour as well as "stop-and-think techniques".
5. Social skills training (sometimes available in school counseling groups).
6. Numerous school intervention (environmental,instructional behavioural).
7. Providing for physical outselt (eg. swimming, martial arts, gymnastics, running - particularly non-competitive sports).
8. Medical Intervention (Drug therapy).
9. Parent education to help parents learn as much as they can about ADHD so they can help their child and be an effective advocate. Parent support groups are excellent sources of training, assistance and networking. Most communities also have parenting classes and workshops dealing with a variety of helpful management strategies.

II. Objectives

1. To understand the problems of a case of Learning Disability and Attention Deficit Disorder
2. Implement the selected strategies which make the treatment program holistic in nature.
3. To study the effectiveness of the selected strategies.

III. Methodology

3.0 The Case

The student selected for our case study is a typical case of a child with learning disability who has a comorbid

disorder of attention deficit. The case study report gives a detailed picture of the case selected along with the holistic approach for managing him. The effect of the intervention strategies are also discussed.

Master A. Ballal is a typical case of learning disability with attention deficit disorder. He is from Udupi in Karnataka state. But at present his parents are in Muscat. So he is studying in a school in Muscat. He was referred to Special Education Centre in Mysore City in the month of June 1998. The centre provides remedial education to children with learning disabilities, mild mental retardation and slow learners. It is residential-cum-day care center. The investigators are the honorary special education consultants of this centre.

Ballal was referred to the centre because of his learning disabilities and behaviour problems such as concentration problems, impulsive behaviour, immature nature and lack of social tactfulness. His mother was healthy during pregnancy and had a normal delivery. He has a history of delayed milestones of development and academic difficulties. He is 12 year old and has completed V standard in regular school.

3.1 Family background

Ballal is from a highly educated and cultured family. His family also is close knit and very affectionate. There is marital harmony between his parents. The parents

have lot of affection and concern for him. They have many relatives in Karnataka. Most of them are close to him and have concern for him.

3.2 General behaviour

Master Ballal was smiling, cheerful, talkative and friendly. He showed interest and motivation in taking up of the informal tests given to him.

3.3 Psychological assessment report

Before joining the centre Master Ballal had a psychological assessment done at Bangalore Children's Hospital and Research Centre, Bangalore. The report indicates that on WISC his verbal IQ is 68 and performance IQ is 95. Thus his performance ability is greater than verbal ability. It is one of the characteristics among majority of learning disabled individuals.

The data obtained from child behaviour checklist indicate that chief concerns of his parents were his immature behaviour, arguementativeness, short attention span, disobedience, talkativeness, being stubborn, irritable and poor school work.

Educational assessment revealed that he was 3-4 years below average in visuo-motor skills, visual sequential memory, auditory sequential memory and sound discrimination. He was normal in sound blending. In vocabulary scale he performed at 11 years of age.

3.4 Educational Assessment Report

Before starting remedial instruction some teacher made tests and standardised tests were administered to him. The standardised tests were Grade Level Assessment Device (Narayan, 1996), Arithmetic Diagnostic Test (Ramaa, 1993), Word Recognition Test and Reading Comprehension Test in English (Umadevi, 1996).

The results in the above tests revealed that he was functioning at III to V grades in different tests in word reading, reading expression and comprehension (English and Hindi) and in arithmetic. As far as spelling is concerned his ability for phonic rules and generalisation was not adequate for his age and class. Ballal is a left hander. His fine motor coordination is poor. He is very disorganised and untidy in his work. He is not able to hold the pencil/ pen correctly. His writing was very slow and he was not able to align letters properly.

Ballal's verbal expression is very good. He uses words precisely and his sentence patterns are quite good. He mainly speaks English. His Kannada knowledge was limited though his mother tongue is Kannada. As he was born and brought up in Muscat, he is exposed to English more than his mother tongue, even at home. He was totally illiterate as far as Kannada language is concerned.

3.5 Behavioural problems noticed during his stay in the remedial education centre -

The following problems were noticed in him during the first quarter of his stay in the centre.

3.5.1 Daily living activities

1. Does not brush teeth in the morning.
2. Does not flush toilet after using.
3. Does not cut nails regularly.
4. Does not clean the table after eating.
5. Does not keep the belongings in order.
6. Loses things quite often.

- Says he forgets, but this is mainly due to lack of interest and motivation.

3.5.2 Classroom behaviour

1. Lethargy
2. Easily gets distracted by external stimuli.
3. Unable to concentrate even for few minutes.
4. Wants constant supervision.
5. Very slow in writing while copying from the board.
6. Does not complete assigned work.
7. Very untidy and disorganised.
8. Can't locate his books and writing articles.
9. Does not do home assignment.
10. Absorbed in his own world.
11. Drowsiness during class hours.

3.5.3 Social behaviour

Though he was cheerful, lovable and friendly boy initially, because of his outspoken nature and many of the behaviours listed above he became socially maladjusted. It is revealed in the following ways:

1. Peers get irritated by his behaviour.
2. Peers rejected him and isolated him.

3.5.4 Impact of peer behaviour on his emotions

The rejection, isolation, aggressive and picking up behaviours of peers have affected his emotional condition. He developed symptoms of depression such as lack of sleep during night, unhappiness, fear complex, lack of interest in daily activities, reduced social interaction, limited talking, biting the lips and nails and suppression of emotional reaction. He has become very submissive and lacks assertion. He does not complain about peer torture out of fear of their aggression and further rejection. He wants to be accepted by the group but is not successful. Other children have exercised more control over his behaviour by putting certain restrictions as to what he has to do and what he should not. In the behaviour of other children some element of jealousy can be noticed. The jealousy may be due to his pleasant looking smiling face, his good verbal expression, liking and appreciation by other members of the Institute because of his good nature.

One of the boys in the group is very aggressive and dominating. He has been accepted as the leader by the group. He influences other children consciously or unconsciously. Because of his bad influence other children who are normally friendly have also become unfriendly with him.

3.6 Remedial Education in the centre

3.6.1 Objectives: The remedial education in the centre was aimed at -

1. Improving his performance in reading, writing, spelling and grammar in Hindi and English.
2. Improving his performance in mathematics.
3. Improving self control and concentration.
4. Developing skills of reading, writing and speaking in Kannada language.
5. Developing social skills which will help him to become a peer group member.
6. Overcoming problem of depression.
7. Teaching the skills of organisation and tidiness.
8. Developing regular habits of hygiene.
9. Encouraging him to involve in group activities and changing the attitude and behaviour of other children towards him.
10. Developing skills of creative expression.

3.6.2 Intervention Strategies

1. Small group instruction and individual attention. The group consists of five children in the age range of 12-14 years.

2. Alpha to Omega for English spelling.
3. Commercially available work books for teaching English grammar.
4. Kannada is taught by following the procedure given in the teachers' and parents' manual prepared to teach Kannada reading and writing to dyslexics and EMR children (Ramaa, 1988).
5. Hindi is taught by giving lot of exercises prepared by the teacher who is giving remedial instruction to him.
6. Mathematics is also taught through series of exercises prepared by the teacher giving remedial instruction. The Principles and Strategies suggested by Gowramma (1998) have been used.
7. Copy writing for improving handwriting by giving model and correcting the errors, regularly, verbalising the differences between letters and describing the shape of letters and position and digits and strokes were done.
8. In all the above cases certain principles given below are followed.
   a. Overlearning
   b. Variety of experiences
   c. Active participation
   d. Multisensory approach
   e. Clarity of sensory experiences
   f. Providing success experience
   g. Close supervision and giving feedback
   h. Correcting the errors immediately

i. Meaningfulness

j. Teaching the basic and pre-requisite skills

k. Self pacing

l. Verbalisation

m. Using daily life experiences

n. Reinforcement

o. Continuous evaluation

p. Diagnostic - prescriptive teaching

9. **Medication** - Antidepressant a concentration improving drugs are prescribed by a psychiatrist - Fludac Syrup 2.5 ml 1-0-0, Neurocetam Syrup 5 ml 1-0-1 and Sarotina 10 mg 2-0-2. He is taking them regularly since two months. Now he sleeps during nights and is alert during day time. There is slight improvement in his on-task behaviour. He has to continue them for some more time. No side effects are noticed in his case.

10. Counselling - Counselling is given by the psychiatrist, parents, relatives and investigators. After medication and counselling he became confident. Suggestions were given to him to be bold enough to express his grievances about his peers, to concentrate on academic work, to spend his leisure time in engaging in the activities which is interesting to him. These suggestions enabled him to make complaints about his peers whenever he was troubled by them. He was also motivated to achieve well. He was also suggested to correct some of his undesirable behaviours. He was assured security

against his peers' further verbal and physical threat. Ballal was motivated to study well. The main motivating factor is his desire to go to regular school and continue his education.

11. **Counselling to peers** - When Ballal started complaining about peers whenever they troubled him, peers became alert. In addition to this, the investigators gave counselling to his peers individually and also in group. They were counselled to be friendly, to include him in all the group activities and not to isolate him. They were made to understand his feelings because of their isolation.

12. **Behavioural contract**-A behavioural chart was prepared for each student in the centre wherein desirable and undesirable behaviours were listed. One of the undesirable behaviour was violence - both verbal and non-verbal, and unfriendliness. One of the desirable behaviour was friendly and helpful. Whenever a student exhibits a desirable behaviour they will get a red mark and whenever they exhibit a undesirable behaviour they will get a black mark. Each month the number of red and black marks will be tallied and the balance will be recorded. Each blackmark costs Rs. 5/- as fine, however the blackmark for violence costs a fine of Rs. 50/-. The individual getting highest number of red mark will be rewarded at the end of the course. This is the positive reinforcement for them.

This has resulted in marked decline in some of the undesirable behaviours of Ballal which are listed before. The other students corrected their behaviour towards him. In the beginning the group members were not disclosing the person who troubled Ballal. So group punishment was introduced, if they did not disclose the fact who is the trouble maker. As a result in the group, they have started pointing out the trouble maker, which in turn has reduced their undesirable behaviours. It was told that their undesirable behaviour will be reported in the confidential report which goes to their respective schools and also to parents at the end of their course. This has further checked their undesirable behaviours.

13. Seeking peer support for enabling Ballal to do home assignment regularly - In order to reinforce the learning taking place in the classroom, home assignments are given to all the students in the centre. One of the complaint, as already listed earlier with Ballal is that he does not complete the assigned work. In addition to his slow writing, his concentration problems and forgetting is the main reason causing this problem. In addition to behaviour contracts, the peers were requested to monitor his work during study hours. They have to work in turn and they will get one red mark if they help him. For about three weeks this system was used and worked well. But those who helped him had to sit longer hours to complete their work too.

14.Appointing individual tutor-Even small group instruction was not effective in Ballal's case because of his severe concentration problem. A separate tutor was appointed for him during study hour since a month. It helped him in doing the work regularly and in performing better in test. As this tutor spends only one and a half hour with him, it is not helping him to a greater extent. So it is decided to appoint an individual tutor who can spend time in instructing him for six hours a day. Moreover this enables him to be more independent work during study hour.

15. Co-curricular activities

To overcome his lethargy passiveness, depression and concentration problem the following co-curricular activities are arranged in the centre.

a. Morning jogging and sports for an hour.

b. Yoga in the evening for 45 minutes.

Both the above activities are guided by a physical education instructor, appointed on part time basis.

c. Weekend picnics and excursions.

d. Visits to relatives during important functions.

e. Celebration of important religious and national festivals.

f. Literary activities like report writing, letter writing, debate, etc.

IV. Effectiveness of the above strategies

Ballal's performance has improved considerably. His handwriting and speed of writing have also improved. He is

able to complete many of the classroom activities in time. In the recent test, he scored around 50% in all the subjects. He was able to score 98% in Kannada word recognition.

Some of his undesirable behaviours such as uncleanliness, untidiness, depression, lack of confidence, have reduced drastically. He has become more motivated to study and to do well in the test. His social adjustments also improved considerably. He has become cheerful once again. However he has to continue with remedial education in the centre for one more year.

V. Recommendations

1. Individualised remedial education has to be continued for atleast another year.
2. It is better if he stays with his parents or close relatives and attend as a day scholar. This will satisfy his emotional needs.
3. Continued medical assistance and counselling is required.
4. Even when he is ready to go to regular school, he needs individualised instruction and remedial education after school hours.
5. Educational and vocational guidance is needed to plan his future.

VI. Implications for General School Education

Children like Ballal, no doubt, require individualised instruction. But their education in regular schools can be

a. establishing resource rooms in the schools.

b. training parents to help them at home.

c. training teachers in adopting certain instructional and management strategies which can be adopted in the regular classroom and school.

d. early identification and intervention.

References

Chawla P.L. et al. (1981) A study of Prevalence and Pattern of Hyperactive syndrome in Primary School Children. Indian Journal of Psychiatry, 23, 313-22.

Gowramma I.P. (1998) Development of Remedial Instruction Programme for Children with dyscalcuila in primary school. Doctoral dissertation submitted to University of Mysore.

Indian Council of Medical Research (1984). Strategies for Mental Health Research, ICMR, New Delhi.

Murthy R.S. et al. (1974) Behaviour Disorders of Childhood and Adolescence. Indian Journal of Psychiatry, 16, 229-37.

Oommen A. et al. (1987) Psychiological Deficits Associated with the Hyperkinetic syndrome, NIMHANS Journal, 5, 109-13.

Ramaa S. (1989) Appropriate Procedure to Teach Kannada Reading and Writing to Learning disabled and Educable Mentally Retarded Children, Regional College Education, Mysore, NCERT.

Ramaa S. (1991) Arithmetic Diagnostic Test, Chetana Book House, Mysore.

Ramaa S. (1992) Handbook on learning disabilities, Regional College of Education, Mysore, NCERT.

Ramaa S. (1996) Package on learning disabilities, Regional College of Education, Mysore, NCERT.

Ramaa S., Ashok D.A., Balachandra H.M. (1997) Study of physical health, learning, emotional and behavioural problems among primary school children in Mandya District, Regional Institute of Education, Mysore, NCERT.

Sandra F. Reif (1990) How to Reach and Teach ADD/ADHD Children: Practical Techniques, Strategies and Interventions for Helping Children with Attention Problems and Hyperactivity.

Umadevi R. (1996) Development of remedial instruction material for improving reading comprehension among dyslexic children. Unpublished doctoral dissertation, Kuvempu University.