



**A STUDY ON THE IMPACT OF ORTON-GILLINGHAM
APPROACH ON SOLVING THE WRITING DISORDER OF
PRIMARY SCHOOL DYSLEXIC CHILDREN AT COIMBATORE
DISTRICT.**

R. VANITHA,
Research Scholar,
Dept. of English,
Karpagam Academy of Higher Education.

DR.V.UNNIKRISHNAN,
Prof. of English,
Karpagam Academy of Higher Education.
(INDIA)

ABSTRACT

Every child is in need of school education particularly the learning of English Language for his/her survival in this competitive world. If the child fails in school it will affect his academic success as well as his self esteem. When the child struggles in language acquisition and processing, he or she is classified as a dyslexic child. It is an accepted truth that many children are suffering from various forms of Dyslexia. And they are facing academic failure even though they have high IQs. Their learning problem is making it difficult for them to compete with other normal children. If it is undiagnosed or these children are not helped in right time, their condition severely affects their academic improvement and the children mostly develop HDAD/ADD related problems. This research aims to reveal most of the difficulties the dyslexic children are facing in the mainstream classroom and giving solutions to their writing difficulties using the Orton-Gillingham Approach as a remedial teaching tool in English Language Teaching.

Key Words: *Orton-Gillingham Approach, Remedial Teaching, English Language Teaching, Dyslexic children.*

Dyslexic children are known for their learning differences, hyperactiveness, reading and writing problems, and above all for their high IQ. And their individual artistic talents are really commendable. Even though they have high IQ, they are facing failures in academics. Their learning problem is much that it is difficult for them to compete with other normal children. If it is undiagnosed or they are not helped at the right time, their condition severely affects their academic performance and the children mostly drop out from school or develop the Attention Deficit Hyperactivity Disorder (ADHD) or the Attention Deficit Disorder (ADD) related problems. The mainstream classroom teaching is designed for auditory and

visual learners. All the tools, techniques and environment are favourable to the auditory and visual learners who are mostly left brain children. The auditory and visual learner will use his left brain to study languages as the left part of the brain is meant for handwriting, language, symbol, reading, phonetics, talking, reciting, following directions, listening, and auditory association. Its mode of consciousness is lineal, sequential, verbal, reality-based, temporal, and logical. So, the non-dyslexic children who are using the left part of their brains to study languages have comparatively a higher logical thinking; hence they are more successful in the mainstream language classrooms than the dyslexic children. The dyslexic children, who are right brainers, are more artistic and less in logical thinking because the right part of the brain is for art, creativity, visualisation, colour sensitivity, spatial relationships, feelings and emotions. Its mode of consciousness is concrete, random, instructive, holistic, fantasy oriented, non-temporal and analogic. So, the dyslexic children are mostly kinesthetic or tactile learners whose learning styles differ from the non-dyslexic children. The dyslexic children cannot learn a language in the way the auditory or visual learners are learning in the mainstream classroom. This study aims to explore the new ways in which the primary school dyslexic children with writing disorders can be helped effectively by using the Orton-Gillingham Approach as a remedial teaching tool in a classroom where English is taught as a second language.

OBJECTIVES OF THE STUDY

- ❖ To identify the dyslexic children in schools where the State Board syllabus is followed and English is taught as a second language
- ❖ To find the short comings of dyslexic children in developing their writing skills
- ❖ To arrive at a remedial teaching strategy to be followed
- ❖ To study the effectiveness of Orton-Gillingham Approach in respect of the dyslexic children.

METHODOLOGY

- ❖ Identifying dyslexic children with writing disorders at the primary schools in Coimbatore District, using Basic and dyslexic tests.
- ❖ IQ test for the dyslexic children
- ❖ Preparing Questionnaire for the teachers
- ❖ Observation on the child
- ❖ Framing the Individual Educational Plan for every student according to the Orton-Gillingham Approach
- ❖ Training the children according to the plan for six months to prove its effectiveness.

STATEMENT OF THE PROBLEM

Viewing dyslexia as a learning difficulty means that something is “wrong” with the learner. This will lead to identifying the weaknesses or problems rather than the strengths. This kind of view will bring in the remediation specialists rather than the knowledgeable subject

teachers to find the solution. If dyslexia is viewed as a learning difference, then a range of strengths and weaknesses in the learner can be identified. Then the remediation will be focused on inclusion, differentiation and learning while teaching English as a second language to a dyslexic student in the mainstream classroom. It can take the form of improving the quality and quantity of discrete intervention like in-class support and need based combination in teaching. Accommodating the dyslexic child in the mainstream classroom is a challenging task to every teacher. The dyslexic child can be accommodated and trained in an easy way in a resource room but as the environment in the mainstream classroom is totally different. Focussing on a particular child for a special need challenges the teacher's ability of teaching and holding patience at a time. The presence of the dyslexic or any learning disabled child is viewed as disturbing an otherwise peaceful learning environment in the mainstream classroom. If the teacher does not know about the child's problem, it will strain the relationship between the teacher and the child and his parents also.

DYSLEXIA

The word Dyslexia has originated from the two Greek words dys meaning difficulty and lexia meaning language. The term was first coined in 1887 by Rudolf Berlin in Germany. Dyslexia is a reading and writing disability, It is a type of learning disorder that affects many children. It is learning disability was previously attributed to some brain injury, or called minimal brain dysfunction, and sensory aphasia, etc.

Sensory aphasia - the loss of the power to understand spoken words, signs, gestures or printed words.

Expressive aphasia - the loss of the ability to speak

Acalculia - the loss of arithmetical ability

Agraphia - the inability to learn or to write

Alexia - the loss of the ability to read

A mild degree of alexia is called dyslexia

Dyslexic children have some learning differences which can possibly affect the learning process in reading, spelling, writing, and sometimes in numeracy. It is a language disorder, and the problem is not in the eyes or the ears but in the language acquisition and processing. One can understand Dyslexia better by the definition of The International Dyslexia Association which is as follows: "Dyslexia is a neurologically based, often familial disorder which interferes with the acquisition and processing of language. Varying in degrees of severity, it is manifested by difficulties in receptive and expressive language, including phonological processing in reading, writing, spelling, handwriting, and sometimes in arithmetic.

TYPES OF DYSLEXIA

Main types of dyslexia are listed below:

- Trauma Dyslexia occurs after some form of brain injury or trauma
- Primary Dyslexia is a dysfunction of the left side of the brain and it does not change with age.
- Developmental dyslexia caused by hormonal development or malnutrition during the early stages of foetal development.

Visual dyslexia the result of immature development of not only the eyes, but the whole process that gets information from the eyes to the brain.

Phonological dyslexia known as the Auditory Processing Disorder (OPD), i.e. the sounds are perceived as jumbled or not heard correctly.

LEARNING STYLE OF THE DYSLEXIC CHILDREN

Learners are categorised on the basis of their learning styles. The teacher has to be aware of these learning styles to help the dyslexic children. Without knowing these learning styles, the teacher cannot use the remedial teaching techniques. So, it becomes very important to design the child's Individual Educational Plan. Four major learning styles are listed below:

- Visual Learners - Receive most of the information through eyes. More visual details like shape, designs, and colours, etc. will help. They can receive information from books, maps, and diagrams, etc.
- Auditory Learners - Receive most of the information through ears. They will enjoy hearing, discussing, talking and listening to music, etc. They get distracted by noise easily. Hence they need a quiet place to concentrate.
- Tactile Learners - Receive most of the information through sense of touch and feelings. They will learn through hands and fingers, and are sensitive to the atmosphere in a room, sensitive to facial expressions, gestures, tone of voice, and body language. They can learn best in an emotionally positive atmosphere.
- Kinesthetic Learners - Receive most of the information through large muscle movements. They can learn by 'doing' and activities; they have difficulty in sitting in one place for a long time. They need physical comfort and get easily distracted by seating, smell of the place, people around

them, and by hunger and thirst.

IQ LEVEL OF THE DYSLEXIC CHILDREN

Most of the dyslexic students have very high IQ. This is a proved phenomenon and a knowledgeable teacher does not need any IQ test to realise this. If the teacher really works with involvement and dedication, it will be very easy to understand that the child is very brilliant but, still, fails at school. If the teacher really wants to prove the child's IQ, then the child can be recommended for IQ test.

REMEDIAL TEACHING TECHNIQUES

Important techniques of Remedial Teachings are:

1. Involve the student
2. Use multisensory teaching methods
3. Use logic rather than rote memory
4. Present materials sequentially
5. Present materials in small units
6. Practice and review
7. Help students organize time and space
8. Individualize instruction
9. Be aware of emotional climate
10. Work with an IEP, lesson plans and document
11. Have a journal on the child

Following these techniques, the teacher can easily help the children to overcome their difficulties.

SYLLABUS AND ITS ROLE IN REMEDIAL TEACHING

After studying the child's difficulty in language learning, the teacher has to analyse the child's IQ level and discuss with the parents before designing the syllabus and teaching plan for the child. If the child gets help from the parents at home, it will be easy for the teacher to achieve good results. In our Indian educational system, the students are simply forced to follow the text book for their answers and they are not encouraged by the teachers to develop their own styles of writing. In remedial teaching, the teachers have to adopt suitable remedial techniques taking into account the peculiar difficulties of their wards. After discussing with parents and analysing about the child's IQ, the teacher has to plan the syllabus for the child in accordance with the child's need and difficulty in learning. If the

parents are not cooperative and perceptive of the problems of the child, the teacher has to make the method of teaching more oriented towards class room activities.

ORTON GILLINGHAM APPROACH

Samuel T. Orton 1879 – 1948 was a neuropsychiatric and worked as a pathologist in Massachusetts, America, where he worked with patients who had language related problems. He was a pioneer in the field of dyslexia. He focused his attention on reading and writing and came out with some suggestions in processing the difficulties in reading and writing. In 1919, Orton was hired as the founding director of the State Psychopathic Hospital in Iowa city, Iowa, and Chairman of the Department of Psychiatry at the University of Iowa College of Medicine. His studies on reading difficulties in children made him theorize that these individuals have failed to establish appropriate cerebral organization to support the association of visual words with their spoken forms. He termed this difficulty as 'STREPHOSYMBOLIA' meaning 'twisted symbols'. He also recorded that some of his research subjects could read more easily if they held pages up to a mirror, and a few were rapid mirror writers. Dr. Orton's gift to the field of education was 'multisensory' teaching - integrating kinaesthetic and tactile based teaching strategies with visual and auditory concepts of mainstream classroom teaching. He started working with Anna Gillingham, who was an educator and psychologist with an excellent mastery over the English language. And Orton encouraged Anna Gillingham to found an approach of multisensory teaching which contains a set of 70 phonograms and 44 discrete sounds or phonemes in the English Language. It has become the basis of most of the remedial teaching for dyslexic children. After the death of Dr.Orton in 1948, his name become strongly associated with Anna Gillingham's approach of teaching, and the Orton Gillingham Approach became very famous and meaningful.

FEATURES OF ORTON - GILLINGHAM APPROACH PERSONALIZED

Teaching begins with recognizing the differing needs of learners. There are differences in language needs and dyslexia and other learning difficulties share similarities, But with dyslexia, may be additional problems that make the learning still more difficult. And common among these are Attention Deficit Disorder - ADD and Attention Deficit Disorder with Hyperactivity - ADHD.

DIAGNOSTIC AND PRESCRIPTIVE

This approach is both diagnostic and prescriptive. The lessons contain instructional elements that focus upon the resolution of the student's difficulties. It is built upon the student's progress noted in the previous lesson. So it is known as the prescriptive approach.



MULTISENSORY

This approach uses all the learning pathways, namely HEARING, SEEING, FEELING AND AWARENESS OF MOTION, which can engage students in multisensory learning that results in greater ease and success in learning

DIRECT INSTRUCTION

The student gets the learning experience through understanding what is to be learnt, why it is to be learnt, and how it is to be learnt.

SYSTEMATIC PHONICS

This approach takes advantage of the sound/symbol relationships in the alphabetic system of writing, and the letters of written words graphically represent those speech sounds.

APPLIED LINGUISTICS

In its most advanced stage, this approach deals with syllabic, morphemic, syntactic, semantic and grammatical structures of language and our writing system. It involves reading, spelling and writing together.

LINGUISTIC COMPETENCE

It increases linguistic competence by stressing language patterns which determine word order and sentence structure and the meanings of words and phrases.

SYSTEMATIC AND STRUCTURED

Through the lesson plan proposed in accordance with this approach, the tutor presents information in an ordered way that specifies the relationship between the material taught and the previous lesson taught. Content of the lesson unfolds in linguistically logical ways which facilitate student learning and progress.

SEQUENTIAL, INCREMENTAL AND CUMULATIVE

Lessons take the students step by step and move from simple, well-learned material to that which is more complex.

CONTINUOUS FEEDBACK AND POSITIVE REINFORCEMENT

This approach based on a close teacher-student relationship builds self-confidence based on success.

COGNITIVE APPROACH

Learners understand the reasons for the learning strategies that are employed. They gain confidence in their ability to apply newly gained knowledge and how to develop their skills with reading, spelling and writing.

EMOTIONALLY SOUND

Teaching is based on providing the experience of success. With success comes increased self-confidence and motivation.

The purpose of everything that is done through the Orton-Gillingham Approach is assisting the student to become a competent reader, writer and an independent learner.

SELECTED DYSLEXIC CHILDREN FOR STUDY

Thirty dyslexic students were selected for the study. At the first stage, a basic test was given to students to identify the learning disabled among them. Among these learning disabled students, dyslexic students with writing difficulty were identified through Davis dyslexic test, IQ test and test for emotional problems. These, dyslexic children were categorised as severe and moderate dyslexics as well as primary and developmental dyslexics on the basis of the results of tests. By observing the selected children, The Individual Education Plan was designed according to their learning style, IQ level, their area of interest and difficulties of the child.

PROBLEMS IN SELECTED CHILDREN IN WRITING

All the selected children had writing difficulty. Out of 22 development dyslexics, 12 were severe dyslexics and 10 are moderate dyslexics. Among these development dyslexic children, 6 were attention deficit, 7 are both hyper active and attention deficit, 3 were remote in nature and 6 were normal children. And out of 8 primary dyslexic children, 6 were severe dyslexics and 2 were moderate dyslexics. Among these primary dyslexic children, 4 were hyperactive and attention deficit, 3 are remote in nature and one is a normal child. All these children had difficulty in the blending of sounds, problems in identifying sounds in words and very poor in the recollecting ability of formation of letters of the alphabet of English.

TRAINING THE SELECTED CHILDREN USING THE O-G APPROACH

Training Session using the O-G Approach

One Hour Training

10 Min.	-	Revision of previous lesson
15 Min.	-	Present day lesson
10 Min.	-	Brain Coordination Exercises
15 Min.	-	Present day lesson
10 Min.	-	Phonemic awareness activities, Blending of sounds, Teaching words.

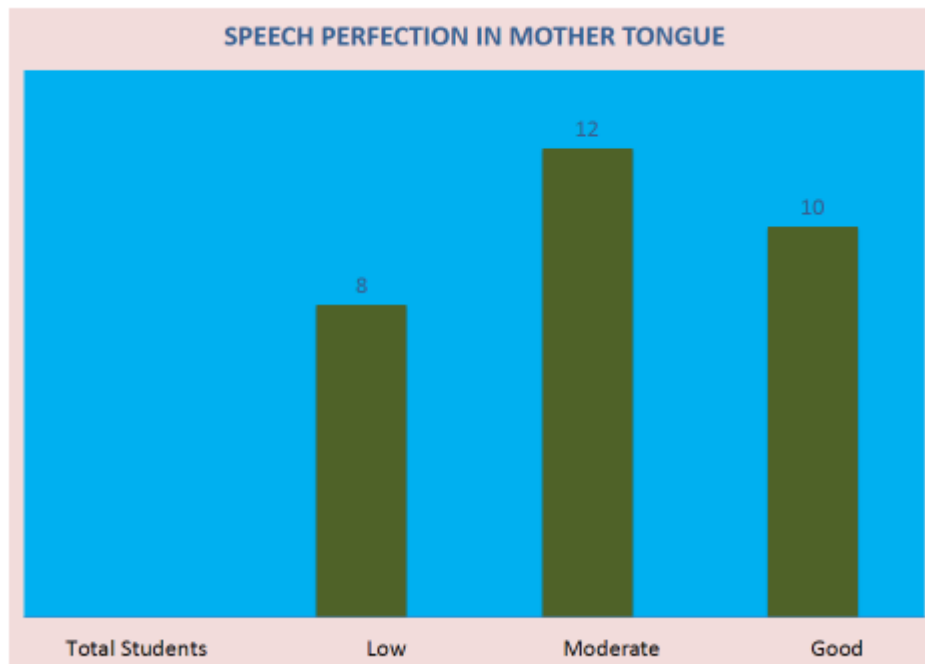
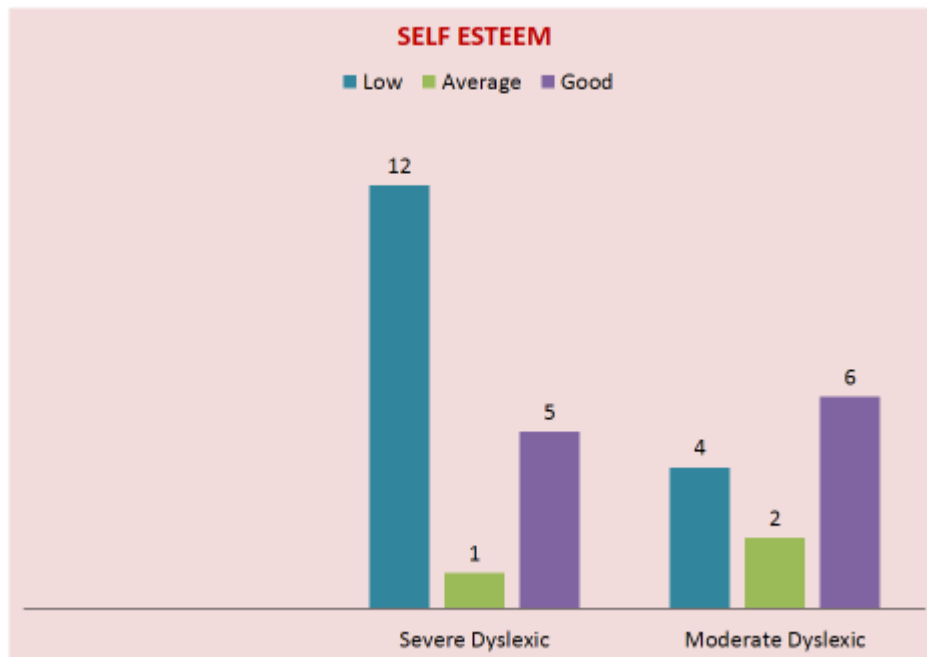
A five month-training was given to the selected children applying the O-G Approach. During the first four weeks, children were trained in the pre skills of writing. During this pre skill training session, children were given the tasks like filling water bottles with water, cutting, pasting, colouring, arranging beads, clay modelling, match stick arrangements and stone arrangements. In addition, directions and basic sounds were also taught.

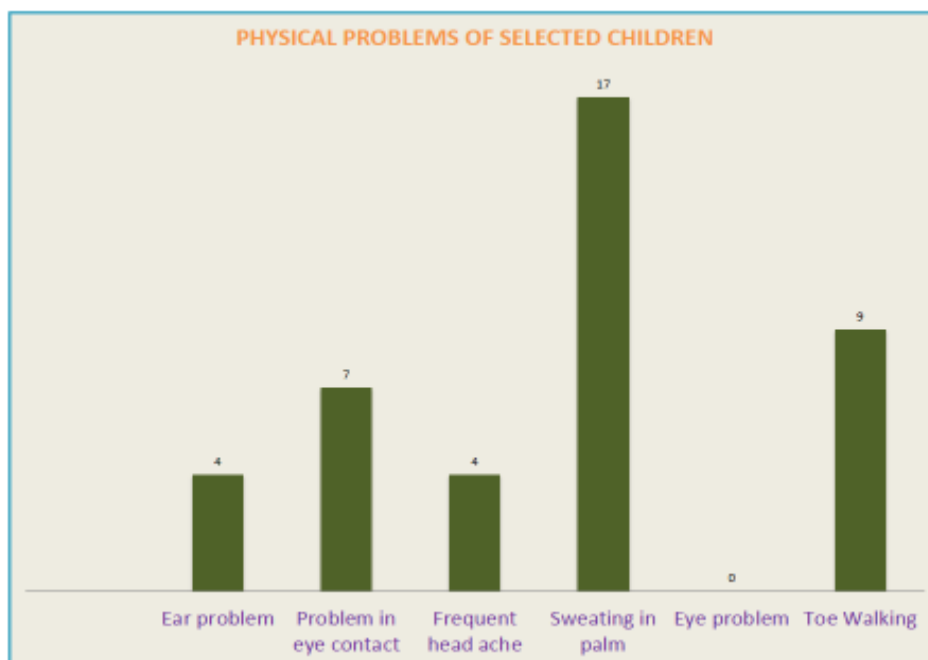
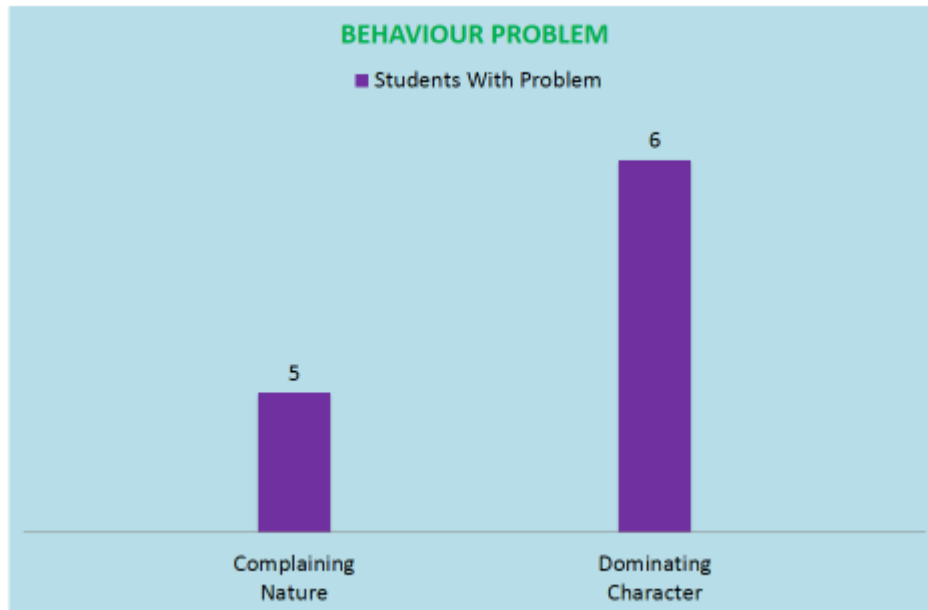
During the next four weeks, children were given training in arranging the letters of the alphabet on the floor using beads, stones and match sticks in an area of 1 square meter. The children were also given training in directions and blending of sounds.

During the remaining 12 weeks, children were given training in writing the letters of the alphabet in 50 cm, 30cm, 25cm, 20cm, 10cm, 5cm and 3cm square areas in charts and black boards. During these sessions, blending, deleting and changing the sounds in words were taught and simple words were given for reading.

- After the pre skill training, children were asked to form the letters of the alphabet on the floor by using beads and stones of different sizes.
- Children struggled in this session because they had to unlearn the formation of letters which they had learnt in a formal way. This training session proved to be tremendously useful to the children.
- And, children were asked to write the letters in the air by using their middle and index fingers.
- After these exercises, children were made to form the letters on the floor by using beads and small beads.
- Tactile children were given stones if they did not prefer beads.
- When the children were forming the letters on the floor, they are asked to tell the sound of the letter and its name.
- Formation of letter size was decreased to 30cm square area from 1 metre square area.
- Once the children were familiar with formation of letters, they were given charts, note books or boards to write according to their comfort.

- In this session, the size of the formation of the letter was reduced to 4cm square box from 30cm square box.
- Then the children were given square ruled notes to write the letters.
- Finally, the children were given ruled notes to write the letters.





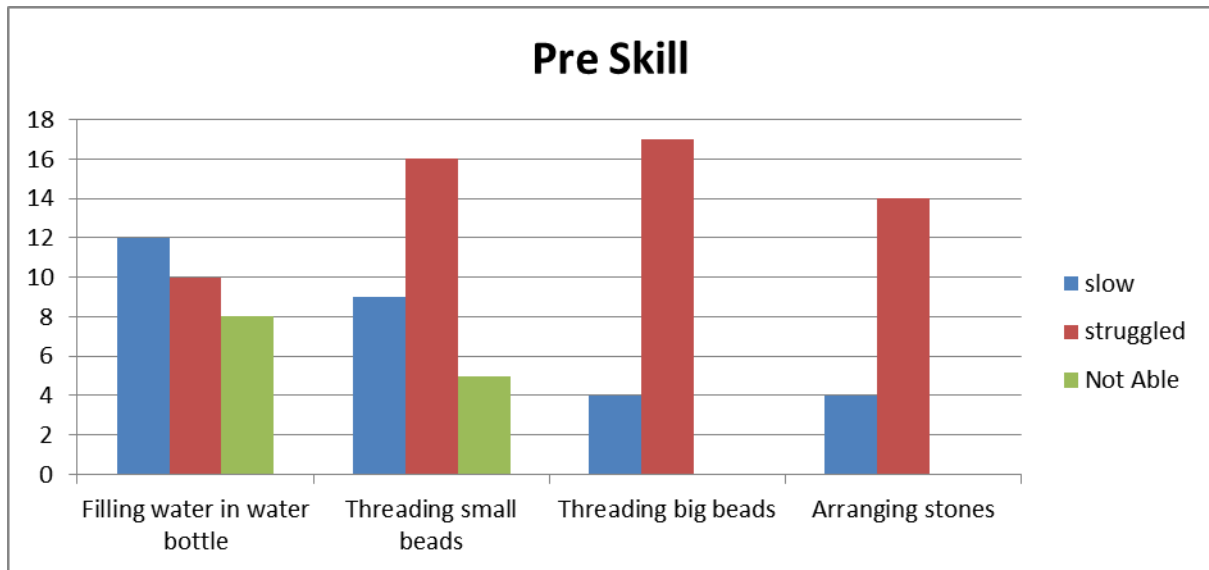
WRITING BEHAVIOR OF SELECTED DYSLEXIC CHILDREN

Among the selected children, mainly the children with the problem of excessive sweating held the pencil too tightly which resulted in the shoulder pain. The remaining children also held the pencil too tightly and got tired of writing. Memory in the formation of letters was poor. Only two children were able to remember the form of letters but they also took a long time to remember the correct form. No child could follow the size of consistency of letters. Six of them wrote only very small letters and held the pencil too tightly. They could write for

only 5 to 7 minutes continuously. No child was ready to write after seven minutes. They wanted to go outside the class finding different excuses like “they want water”, “they want to go to the toilet”, etc. The hyperactive children were unable to write only five minutes without a break. They preferred to write by standing not by sitting.

RESULTS AND

DISCUSSION



BEHAVIOURAL IMPROVEMENTS AFTER PRE SKILL TRAINING

- Children’s behaviour improved after pre skill training for 4 weeks
- Improvement in behaviour was noticed in some children by the third week of the training itself.
- After the fourth week, all the children showed behavioural improvement. But it was only in the remediation class, not in their mainstream class, which was confirmed by the class teacher.
- After 8 weeks of training, improvement in behaviour was noticed by the class teacher in the class.
- After 12 weeks of training, all the selected children showed improvement in behaviour in their mainstream class.
- Their eye contact improved.
- Toe walking and running were reduced.
- Their time span of attention increased.
- All the hyperactive children were able to write the letters of the alphabet in the sitting position.
- Bumping into things, against walls and other children was decreased as the children’s walking and running pattern changed. (Toe walking and running were reduced).
- Remote children started interacting which led to an improvement in their speech.

IMPROVEMENT IN PHYSICAL HEALTH

- Their health improved because of the improvement in their eating habits.
- Weight gain was noticed after 12 weeks of training.
- Sweating in palm was reduced.
- Complaining of head ache, vomiting sensation, and giddiness decreased.

IMPROVEMENT IN SELF ESTEEM

- From the third and the fourth week of training, children started showing a higher self esteem improvement.
- Improvement at the early stage was noticed inside the remediation class.
- Slowly after five weeks of difference, improvement was noticed in the mainstream class room also.
- Meeting the teacher became more frequent. Involvement in classroom activities improved.
- Complaining and dominating nature decreased as the children became friendly with their classmates.

IMPROVEMENT IN WRITING

- Improvement in holding the pencil was noticed.
- Pressure on pencil was also improved.
- Sitting posture for writing improved.
- Paper position for writing improved, Size consistency of letters improved.
- Writing letters on the line improved.
- Formation of letters of the alphabets was learnt and improved tremendously.
- IMPROVEMENT IN PHONEMIC AWARENESS
- The selected children were able to identify and write the letters of the alphabet.
- The selected children were able to identify and write the sound of the letters of the alphabet.

RECOMMENDATIONS BASED ON THE STUDY

Teaching dyslexic students in a mainstream classroom is challenging, but it is not impossible. Both the mainstream education and special education teachers need accommodations to promote the learning in and management of a class of mixed learners. After identifying the strengths and difficulties of the children, it becomes very important to identify the right accommodation for each child to achieve goals. The given accommodations are effective in helping a dyslexic student with learning problems to achieve in general education. Accommodation of a dyslexic student in the mainstream classroom can be done in the following three ways:

1. Accommodating the dyslexic student by materials.
2. Accommodation involving interactive instruction.
3. Accommodation involving student performance.

All these accommodations are tried and proved defective on dyslexic children with writing disorder in the mainstream class room. Accommodating and training the dyslexic children using the Orton-Gillingham approach in the mainstream class room are effective with regard to the writing disorder as well as learning sounds.

CONCLUSION

When dyslexia is acknowledged as a specific learning difference rather than a specific learning difficulty, it helps one to come up with new lesson plans, vision and hope. The Government is ready to help the dyslexic students, if approached. It is the language teacher's duty to identify and help the child in the classroom and help the child to get help for their board exams. To make more dyslexia-friendly schools, the focus has to be changed from identifying weaknesses to celebrating strengths. This will happen only by using remediation teaching techniques by the English language teacher. Preventing the academic failure and helping the child to cope with the world can be done by the knowledgeable and effective English language teacher through early intervention and remedial teaching.

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