

Psycho-Social variables of Elementary School Children with Reading Difficulties in relation to their Academic Achievement

Dr. G. Lokanadha Reddy

Professor and Dean, School of Education and HRD, Dravidian University, Kuppam.

Bindu David

Doctoral Fellow, Department of Education, Alagappa University, Karaikudi

G. Susmitha

School Teacher, Kishore Public School, Tanakallu (P & M), Anantapur (Dist)

Abstract

Reading is an integral part of language system and is closely linked to oral language and writing. Without the ability to read, the opportunities for academic and occupational success are limited. This article helps to understand the psychosocial correlates of reading disability. Some students may refuse to even try a task due to fear or failure. Many learning disabled children have low feeling of Self worth due to academic failure, disappointment and frustration. The study conducted on 58 reading disabled children belonging to five Taluks of Kerala state. Reading Difficulties Diagnostic Test is used to collect data. The collected data were analysed using t-test, F-test and Product Moment Correlation (r). This article helps to understand what are reading disabilities, how they are identified, what are the associated psychosocial aspects of reading disabilities and in what way the parents and teachers can help these children to overcome this problem.

Introduction

Reading is an integral part of education and everyday life. It appears to be a skill that given the right opportunities, people acquire almost with effortless ease. Although children with learning disabilities have difficulties in all areas of learning and development, the greatest number of children affected by learning disabilities are characterised by poor reading skills. The reading problem in children is usually referred to as dyslexia. Reading difficulty is defined as a significant unexplained delay in reading in a child of overage or above average intelligence. It is based on the degree of delay in reading rather than on the particular type of errors the child makes.

The term dyslexia also referred sometimes as reading retardation is used to identify children who have severe difficulty in learning to read. The child may even be two years behind his/her expected level of reading. Dyslexia may be a result of

diverse factors including (a) evidence of an etiology of brain damage (b) the observation of behavioural manifestations of central nervous system dysfunction (c) the indication of a genetic or inherited cause of reading problem (d) the presence of a syndrome of maturational lag. It can be used to describe a child, who has been unable to learn to read through the regular classroom methods.

The research section on developmental dyslexia of the World Federation of Neurology defined dyslexia in two ways (Critchly, 1970). Dyslexia is a disorder manifested by difficulty in learning to read despite conventional instruction, adequate intelligence, and socio - cultural opportunity, it is dependent upon fundamental cognitive disabilities which are frequently of constitutional origin. Dyslexia is a disorder in children who despite conventional classroom experience fail to attain the language skills of reading, writing, and spelling commensurate with their intellectual abilities. The term dyslexia is related to the term alexia, which describe a loss of ability to read because of an injury to the brain such as cerebral stroke. The condition of alexia also called “acquired word blindness”, occurs in an adult who had already learnt to read.

Characteristics of the Dyslexic Reader

- a) The dyslexic reader has average or above average intelligence. However verbal IQ tends to be significantly below performance IQ.
- b) Severely disabled readers often have comprehension difficulties and cannot understand the meaning of a given passage.
- c) Members within the family may show similar reading problems.
- d) Dyslexic readers tend to be spatially disoriented, with profound left right confusion. This affects the way they perceive words;
 - There is frequent kinaesthetic reversal of letters (b-d; film - flim); of words (saw- was) and sometimes of entire sentences.
 - Sounds are confused (empty - entry).
 - Concepts are reversed (floor to ceiling, cake for bread; east for west).
 - The reader is usually left handed and has difficulty in identifying right from left.
- e) There may be poor figure - ground discrimination and motor and visual motor patterning. Fine motor movements tend to be clumsy. The child may write very untidily with jerky irregular strokes. The letters tend to be poorly formed, irregular and uneven in formation.

- f) Speech difficulties is also a typical characteristic of dyslexic reader, stuttering, lispings and cluttering are quite common. Slowness in learning to talk is often indicative of later problems in reading.
- g) There is a tendency to be hyperactive, impulsive and distracted. Most dyslexic readers have a short attention span and low frustration level. They tend to perseverate (get fixed on words) and lack the ability to scan lines, an ability required for successful reading. They are unable to discriminate between letters and cannot attend to critical features of a word.
- h) Dyslexic readers tend to have an inefficient visual memory system. This means, they cannot recall the sequence of letters in a word and this prevents them reading from becoming automatic
- i) Longitudinal studies confirm that severely dyslexic readers continue to manifest severe reading problems as adults, despite intensive remedial intervention (Fraueheim, 1978).
- j) The dyslexic reader functions one grade below expectancy in primary classes and two or more grade levels below in later school years.
- k) There is little or no progress despite intensive instruction.

Psycho-social correlates of Reading Disability

Psycho-social variables encompass two categories of variables. First consist of psychosocial attributes like achievement motivation, self concept etc. which exist at the individual level, and are likely to be the result of the process of socialization. The second category is sociological that is more structural in nature. Social and personal adjustment, home environment are examples of social variables.

Achievement motivation

Smith (1969) defines achievement motivation as it is a task oriented behaviour that allows the individuals performance to be evaluated according to some internally or externally imposed criterion, that involves individual in competing with others, or that otherwise involve some standard of excellence. Achievement motivation can be seen in many areas of human endeavour on the job, in school, in home making or in athletic competition. For example, people in whom the need for achievement in strong seek to become accomplished and to improve their task performance. They are task oriented and prefer to work on tasks that are challenging.

Learning disabled children exhibit a discrepancy in achievement and apparent potential for learning. It is assumed that learning disabled students need more motivation as compared to normal students. The learning disabled child with proper attention has the potential for normal development and successful school achievement.

Self-concept

Self-concept indicates the extent to which a person believes himself or herself capable, significant, successful and worthy. It includes feeling about both physical self and psychological self in relation to the environment. It is a system that places a crucial role in determining responses to experience and selects what experience will be engaged in, one's self concept primarily develops from the interaction with parents, peers and teachers (Dyson, 2003).

Black (1974) found that children with learning disabilities to be lower in self concept than their peers. In addition, Black noted that self concept is directly related to achievement. Due to repeated academic failure, disappointments and frustrations, it is not surprising that many learning disabled students have low feelings of self worth. Some students may refuse to even try a task due to fear of failure.

Personal adjustment

Adjustment means to fit to, adopt or to accommodate, thus when we adjust to something, we change it in some way to make it appropriate to certain requirements. Adjustment is a process to lead a well established and a contented life. It keeps balance between one's need and the capacity to meet those needs. It further brings changes into one's way of life according to the elements of the situations and prefers ability to bring changes and the conditions of one's environment.

There is wide spread recognition that children with learning disability may experience social and emotional problems because of their learning difficulties. They experience stress, anxiety, depression, low self esteem, poor adjustment etc.

Bhola et al. (2000) found that learning disabled children had significantly lower academic, social, personal, general and total self esteem than normal children. It was also found that children with learning disabilities show poor adjustment than children without learning problems.

Social Adjustment

The Online Medical Dictionary (2008) defines the term ‘Social adjustment’ as those types of relationships which involve the accommodation of the individual to circumstances in his social environment for the satisfaction of his needs or motives.”

Many research studies have shown that children with LD exhibit difficulties with social relationships and social interaction, have a low academic self-concept, and have a variety of emotional difficulties. Doing poorly in school is also related to problems with social behaviour and peer acceptance. Some of these characteristics include a lack of judgement in social situations (such as sharing personal information with strangers), difficulty in deciding how others feel, interpersonal problems, problems involving family relations, lack of social competence in school and low self concept.

The academic achievement is influenced by various factors. It may be due to physical state, social life, abilities of the student and may also be due to their emotional state. It is found that among the learner variable, the personality variables are most important.

Home Environment

Home is the first and major agency of socialization and parents play a pivotal role in shaping the child’s life. A supportive home environment is a strong determinant of the personality development of the child. Many children are denied the opportunities for healthy around development. It has been observed by Pandey (2000) that most of the children who are successful in doing any task come from families where wholesome relationship exists between children and their parents.

Academic achievement can be made easier for children if the development in school and the development at home are recognized and built upon. A good home environment will provide a conducive atmosphere for the harmonious development of the child. Parents can give positive attention especially at the time of crisis, provide nurturance, be positive role models and establish close bonds as a caretaker, friend or favourite teacher. The person ultimately responsible for the child is the parent. Without the help, co-operation, advice and understanding of parent there will be very little long lasting remediation. Hence, home environment can affect children in different ways from the shaping of personality to the facilitation of cognitive gains.

Various psycho-social factors, viz. achievement motivation, self concept, personal adjustment, social adjustment and home environment affect the academic achievement of reading disabled children. The present study is an attempt to find out the psycho-social aspect of reading disabled children and the nature and extent of its relationship with academic achievement.

Objectives of the Study

1. To develop a diagnostic test to identify the children with reading difficulties.
2. To find out significant differences, if any, in the reading difficulties of children due to variation in their Gender, Community, Father's educational qualification, Mother's educational qualification, Occupation of father, Occupation of mother, Number of children in the family, Exposure to different media, Locale of the school, Type of management of school and Medium of instruction.
3. To find out the level of Achievement motivation, Self concept, Personal adjustment, Social adjustment and Home environment of children with reading difficulties.
4. To find out the relationship between Achievement motivation and Academic achievement, Self concept and Academic achievement, Personal adjustment and Academic achievement, Social adjustment and Academic achievement, and Home environment and Academic achievement of children with reading difficulties.

Hypotheses of the Study

1. There exists a significant difference in the reading difficulties of children due to variation in their Gender, Community, Father's educational qualification, Mother's educational qualification, Occupation of father, Occupation of mother, Number of children in the family, Exposure to different media, Locale of the school, Type of management of school and Medium of instruction.
2. There exists a significant relationship between Achievement motivation and Academic achievement, Self concept and Academic achievement, Personal adjustment and Academic achievement, Social adjustment and Academic achievement, Home environment and Academic achievement of children with reading difficulties.

Methodology used in the study

Survey method is used in the study. The investigator constructed Reading Difficulties Diagnostic Test to identify the children with reading difficulties. The different components of Reading Difficulties Diagnostic Test are; Letter identification (visual auditory perception), Word attack (auditory visual association), Analogue (auditory sequential memory), Sound identification (auditory discrimination), Oral reading (auditory visual difficulties), Word recognition (visual motor difficulties), Rhyming words (visual verbal difficulties), Comprehension (perceptual sensory reception), Segregate the sounds (auditory segmentation) and Cloze Test (perceptual sensory information). The final draft of Reading Difficulties Diagnostic Test consists of 50 objective type questions. The other tools used for the study are Achievement Motivation Scale, Home Environment Inventory, Self Concept Scale, Personal adjustment Inventory for Upper Primary School Children and Social Adjustment Inventory for Upper Primary School Children.

The study was confined to five Taluks of Kottayam district of Kerala state. The Taluks which come under Kottayam district are Kottayam, Meenachil, Vaikom, Changanacherry and Kanjirappally. From 203 upper primary schools present in Kottayam district, the investigator selected 22 schools comprising 7 Government schools, 8 Aided schools and 7 unaided schools, using simple random technique. There were 2312 students studying in the selected schools. The reading disabled children were identified on the basis of three phases. They are (i) identifying phase, (ii) scientific confirmatory phase, and (iii) counter check phase.

For the first phase, the teachers' observation on students' curricular activities was given due consideration. In addition to these, the quarterly and half yearly examination results were analysed by the investigator. In the second phase, the identified learning disabled children were subjected to scientific confirmatory test. For this purpose, Raven's Coloured Progressive Matrices (1986) is used. The students with 5th, 25th, 25th to 75th percentile point in RPM test scores along with observation of teachers and poor performance for English and Mathematics in the terminal examination were considered as students with reading difficulties.

Lastly, the reading disabled children were counterchecked on the basis of scores in the Reading Difficulties Diagnostic Test. Thus, 58 children with reading difficulties were identified.

Results and Discussion

Table 1 Number and Percentage of Children facing Reading difficulties

Nature of Reading difficulties	Number and Percentage of children facing difficulties	
	Number	Percentage
Letter identification (Visual auditory perception)	12	20.69
Word attack (Auditory visual association)	32	55.17
Analogues (Auditory sequential memory)	49	84.48
Sound identification (Auditory discrimination)	48	82.76
Oral reading (Auditory visual difficulties)	42	72.41
Word recognition (Visual motor difficulties)	40	68.97
Completion of rhyming words in the pictures given (Visual verbal association)	47	81.03
Comprehension skill (Perceptual sensory reception)	57	98.27
Segregation of words based on sounds (Auditory segmentation)	44	75.86
Close test (Perceptual sensory information)	56	96.55

Table-1 clearly shows that out of 58 children, 12 children (20.69%) have difficulty in letter identification. Letter identification is the first step in reading process. Letter identification instruction includes teaching the name, characteristics and formation of letter symbols. The goal of letter identification is to ensure that the students are able to recognize and name the letter shapes as well as discriminate among them. Explicit instruction in letter recognition and exposure to letters in print is essential practices while teaching letter identification. Word attack is lacking in 32 children. Word attack is an auditory visual association based task. To

overcome this difficulty a structured phonic remedial programme is necessary. Word attack strategies help students to decode, pronounce and understand unfamiliar sounds.

'Analogues' helps to measure the auditory sequential memory. 49 children experience this task as difficult. The difficulty in auditory sequential memory can be overcome with pictorial representation of the pair of sentences. Cognitive exercises designed to improve concentration, perception, memory, logical thinking and increase brain power, help to overcome this difficulty. Sound identification is an auditory discrimination task. Auditory discrimination is the ability to recognise

or distinguish between sounds used in speech. The above table depicts that 48 children (82.76%) experience difficulty in identifying the sounds of each letter and word. 42 children face difficulty in oral reading. The difficulty in oral reading is caused by auditory-visual difficulties. In oral reading the children committed errors like omission, addition, substitution, repetition and reversals. During oral reading, encourage the children to read fluently, pausing and stopping at appropriate places, read with a purpose for suitable audience, use the variable like appropriate pitch and tone of voice.

Word recognition requires visual motor processing. Out of 58 children 42 children shows difficulty in this area. Difficulty in word recognition is due to visual motor difficulties. Children's ability to recognize words can be developed by teachers by pointing out the words, by a variety of language games and by writing those words. The teachers can also make use of exercises with pictures, individual letters and words. Contextual clues such as semantic clues, syntactic or word order clues and picture clues can be used to improve the ability of word recognition.

The difficulty in the area of rhyming words is due to difficulty in visual verbal association. 47 children out of 58 children face difficulty in this area. Rhyming words are simply defined as a pair of words with identical sounds. Encourage the children to learn different words from different word families and understand their meaning. Ask them to browse various rhymes from books, poems, songs and advertisements.

Most of the children face difficulty in comprehension. 57 out of 58 students lack this skill. Comprehension task measures the perceptual sensory reception of the students. This task helps the student to master specific reading skills ie, main idea, factual recall, vocabulary sequence, inference and drawing conclusion. The poor perceptual sensory reception leads to a failure to grasp meaning and come to inferences on a context. For these children Rebus approach where different nouns and concepts are explained with the help of pictures and symbols is of great help. 75% of children face difficulty in sound segmentation. To overcome this difficulty, training in phonic programme is of great help.

Many of the children face difficulty in the area of cloze test. Out of 58 children 56 children face difficulty in this area. A cloze test measures children's comprehension abilities by giving them a short text with blanks where some of the words should be and asking them to fill the blanks. To develop these skills, practice

on prepared paragraphs or prepared paragraphs developed on the overhead projector help in improving the sensory perceptual information.

Table 2 Mean and SD scores of children with reading difficulties and calculated t/F values based on the personal variables

Variable	N	Mean	SD	Calculated F/t value
<i>Gender</i>				
Boys	39	12.44	2.08	2.53*
Girls	19	14.00	2.47	
<i>Community</i>				
FC	24	13.63	2.65	2.18@
BC	18	12.78	1.93	
SC/ST	16	12.13	1.96	
<i>Father's Educational Qualification</i>				
Primary	12	11.00	0.85	14.47**
High School	35	12.89	2.05	
College	11	15.27	2.19	
<i>Mother's Educational Qualification</i>				
Primary	14	11.57	1.69	3.57*
High School	33	13.36	2.35	
College	11	13.45	2.34	
<i>Father's Occupation</i>				
Agriculture	12	11.08	0.79	21.09**
Business	40	12.93	2.06	
Employed	6	16.83	0.41	
<i>Mother's Occupation</i>				
Unemployed	33	12.94	2.13	0.876@
Self-employed	16	12.50	2.48	
Employed	9	13.78	2.68	
<i>Number of children in the Family</i>				
1 to 2 children	45	13.22	2.22	1.71@
3 or more children	13	12.00	2.42	
<i>Exposure to Different Media</i>				
Radio	11	11.82	0.98	9.62**
TV	29	12.36	2.02	
Radio, TV and Magazine	18	14.67	2.45	
<i>Locale</i>				
Urban	16	16.00	0.816	10.78**
Rural	42	11.79	1.47	
<i>Type of Management</i>				
Government	20	12.15	2.18	16.78**
Aided	31	12.61	1.80	
Unaided	7	16.71	0.48	
<i>Medium of Instruction</i>				
English	13	13.77	3.17	1.47@
Malayalam	45	12.71	1.98	
** Significant at 0.01 level;				
* Significant at 0.05 level; @ Not significant at 0.05 level				

From table-2, it is observed that the obtained t-value (2.53) for the variable Gender is significant at 0.05 levels. It means, boys and girls significantly differ in their reading ability. Further, boys experience more reading difficulties than girls. For the variable 'Community', the obtained F-value (2.18) is not significant at 0.05 levels. From the mean value, it is inferred that, SC/ST students experience more reading difficulties than FC and BC students. For the variable 'Father's educational qualification' the obtained F value (14.47) is significant at 0.01 levels. The children of college educated fathers experience less reading difficulties than their counterparts with fathers having primary and high school education qualification. The obtained F-value (3.57) is significant at 0.05 levels for the variable Mother's educational qualification. Further, it is noticed that children of college educated mothers

experience less reading difficulties than the children with mothers having primary and high school educational qualification.

Father's occupation has significantly influenced the reading difficulty of children. The F-value (21.09) is significant at 0.01 levels. Further, the mean value shows that children of employed parents experience less reading difficulty. For the variable mother's occupation, the obtained F value (0.876) is not significant at 0.05 levels. It can be inferred that mother's occupation has no significant influence on the reading difficulty of children. From the obtained t-value (1.71), it is clear that number of children in the family has not significantly influenced the reading difficulties of children. The children from families having 3 or more than 3 children face more reading difficulties than children from families with one or two children. The variable 'exposure to different media', has significant influence on the reading difficulties of children. The obtained F-value (9.62) is significant at 0.01 level. The children with exposure to radio or TV alone are experiencing more reading difficulties than those with exposure to radio, TV and magazine together.

From the table-2, it is clear that the variable Location of the school has significantly influenced the reading difficulties of children. The obtained t-value (10.78) is significant at 0.01 levels. The children from the rural schools face more reading difficulties than children from urban schools.

For the variable type of management the obtained F-value (16.78) is significant at 0.01 levels. Management schools significantly influence the reading difficulties of children. Government school children are experiencing more reading difficulties than their counterparts studying in aided and unaided schools.

From the calculated t-value (1.47) it is inferred that the medium of instruction is not significantly influencing the reading difficulties of children. Further, from the mean value it is clear that Malayalam medium school children experience more reading difficulty than English medium school children.

Table 3 Number and percentage of children having reading difficulties with their levels of Achievement Motivation, Self concept, Personal adjustment, Social adjustment and Home environment

Variable	Low		Moderate		High	
	No.	%	No.	%	No.	%
Achievement Motivation	12	20.7	35	60.3	11	19
Self concept	5	8.6	44	75.9	9	15.5
Personal adjustment	13	22.4	42	72.4	3	5.2
Social adjustment	12	20.7	34	58.6	12	20.7
Home environment	11	19	43	74.1	4	6.9

Table-3 demonstrates that under the category of children with reading difficulties, 12 children (20.7%) fall in low achievement motivation, 35 children (60.3%) fall under moderate

achievement motivation and 11 children (19%) are with high achievement motivation. For the personality variable-Self concept, 5 children (8.6%) are with low self concept, 44 children (75.9%) come under the category of moderate self concept and only 9 children (15.5%) have high self concept. In personal adjustment of children with reading difficulties, 13 children (22.4%) have low level of personal adjustment and only 3 children (5.2%) are with high level of personal adjustment. A majority of 42 children (72.4%) are coming under moderate level of personal adjustment.

For the variable Social adjustment, it is observed that among the children with reading difficulties, equal percentage of children possess low and high level (20.7%) of social adjustment. Majority of children (58.6%) got moderate level of social adjustment. Under the variable-Home environment, 11 children (19%) have less favourable home environment; whereas, 43 children (74.1%) come under moderate and only 4 children (6.9%) have highly favourable home environment.

Table 4 Correlation between each of the psycho-social variable and academic achievement of children with reading difficulties

Variable	Subjects		
	English	Mathematics	Other Subjects put together
	r-value	r-value	r-value
Achievement Motivation and Academic Achievement	0.37**	0.33**	0.98**
Self concept and Academic Achievement	0.69**	0.58**	0.37**
Personal adjustment and Academic Achievement	0.20@	0.16@	0.75**
Social adjustment and Academic Achievement	0.35**	0.19@	0.62**
Home environment and Academic Achievement	0.38**	0.33*	0.43**
<i>N =58; ** Significant at 0.01 level; * Significant at 0.05 level; @ Not significant at 0.05 level</i>			

From table-4, it is clear that the r-value of achievement motivation and academic achievement in English (0.37), Mathematics (0.33) and other subjects (0.98) are significant at 0.01 level. It indicates that, achievement motivation has a strong positive correlation with academic achievement in English, Mathematics and other subjects put together. Likewise, the obtained r-values for Self concept and academic achievement in English (0.69), Mathematics (0.58) and other subjects put together (0.37) are significant at 0.01 level. It implies that there is a positive relationship between Self concept and academic achievement in English, Mathematics and other subjects put together.

When personal adjustment and academic achievement have been taken into consideration, it can be noticed that the obtained r-value for English (0.20) and Mathematics (0.16) are not significant at 0.05 level. But, there is a positive relationship between Personal adjustment and academic achievement in other subjects. The obtained r-value for Social adjustment and academic achievement in English (0.35) and other subjects (0.62) are significant at 0.01

level. But the r-value of social adjustment and other subjects put together are not significant at 0.05 level. Further, the obtained r-value for Home environment and academic achievement in English (0.38) and other subjects (0.43) are significant at 0.01 level. While the r-value of Home environment and academic achievement in mathematics (0.33) is significant at 0.05 level.

Remedial Strategies to overcome Reading Difficulties

Reddy et.al (2000 & 2004) in their works elaborated the remedial strategies to overcome learning disabilities in children.

Multisensory Reading Method : This method is based on the premise that some children learn when the content is presented in several modalities. Many a time visual modality is used along with auditory modality. For this purpose, letters/ alphabets made out of paper, crayons or coloured pencils/ chinks can be used. This method uses different senses like visual, auditory, kinaesthetic or tactile.

Drill Card Method: The sound of each letter is taught with this approach. Those letters having one sound can be presented on the drill or flash cards. A book of printed alphabets or letters can also be shown to the child. This will help the child to see resemblance between the printed and the written word.

Joint Oral Learning Method : This method is known to be very effective with the children having severe reading difficulties. It aims to help students attain fluent reading automatically. This method comprises joint oral learning at a rapid pace, both by the teacher and the student. It is generally believed that a student can learn better by having his own voice as well as someone else's voice jointly reading the same material.

The Tape Recorder Method: In this method the child simply reads aloud in the tape recorder. After the session the child is made to hear what he/she has just read. The child is then asked to detect the errors made. The child can re-read the material. This is done till the child gains full mastery over the material.

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