## CHAPTER – VI: SUMMARY AND SUGGESTIONS

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6.1 Introduction

We are justly proud of the educational scenario in India today as it is claimed to be meritorious. We speak of education for all; but in reality a majority of the students remain academically backward. Their number is alarmingly high at all stages of education. In higher education especially in professional courses where there is much competition, the low performing students are pushed out. Education has thus become the monopoly of a handful of able students. The low performing students labelled as the learning disadvantaged become ossified.

Learning disability is found across all the ages and in all socioeconomic classes. In the early 1960s the difficulty that many children were having with learning began to attract serious attention. An increasing number of children was found unable to cope with school work especially with reading, writing, spelling and arithmetic. These children were otherwise bright, fairly articulate in their verbal expression and did not appear to have any form of mental retardation, sensory handicaps or visual impairment.

On April 6, 1963, Samuel Krik addressed a gathering of anxious parents in Chicago in which he first used the phrase ‘learning disability’ to describe these children. The phrase ‘learning disability’ was formally accepted and an organisation called the Association for Children with Learning Disabilities (ACLD) was started in America to provide service for individuals of all ages. Since then the theories developed in the West are followed. The attempt to study the children with learning disabilities is very sparse in the East.
Samuel Krik (1963) used the term learning disabilities to describe children “who have disorders in development in language, speech, reading and associated communication skills needed for social interaction”. National Advisory Committee (1981) commented that “children with Special learning disabilities may be manifested in disorders of listening, thinking, talking, reading, writing, spelling or arithmetic” (Onita Nakra, 1998). Federal Register (1977) defined this as “a disorder which may manifest itself in an imperfect ability to listen, think, speak, read, write, spell or to do mathematical calculation” (USOE, 1977). National Joint Committee (1981) proposed that “learning disabilities refer to a heterogeneous group of disorders manifested by significant difficulties in the acquisition and use of listening, speaking, reading, writing, reasoning and mathematical abilities”. All these definitions enunciate that learning disabilities refer to disorders in the basic skills of language, mathematics and associated skills.

The learning disabled children exhibit a wide variety of characteristics. The main characteristic feature of all definitions of learning disabilities is that there is a severe discrepancy between achievement and intellectual ability in some areas such as oral expression, written expression, listening comprehension, reading comprehension, reading or mathematics. Besides this basic characteristic element, there are other characteristics which are more common to children with learning disabilities. These characteristics are delayed spoken language development, poor spatial orientation, inadequate time concepts, difficulty in judging relationships, direction related confusion, poor general motor co-ordination, poor manual dexterity, social imperceptions, inattention, hyperactivity, perceptual disorder and memory disorders.

Possible causes of learning disability fall under three general categories, viz. organic, biological, and genetic and environmental. Many
professionals believe that learning disabled children have central nervous system dysfunction which includes neurological damage and maturational delay (Bender, 1973., Koppitz, 1972). Many researches revealed that genetic factors are involved in learning disabilities (Hallgren, 1950., Herman, 1959., Pennington, 1990). Biochemical factors, nutritional deficiency, prenatal and postnatal factors like maternal endocrine disorder, Rh factor, radiation, maternal age, rubella, anoxia are also the causative factors. Poor home environment and socio-economic factors of the child may result in learning disability. Inappropriate teaching method is one of the causative factors for learning disabilities (Bruner, 1971).

Academic achievement is considered as a key to judge one’s potentialities and capacities. Learning disabled student gets low marks in the examinations when compared to normal student of his/her class. Teachers can help children with learning difficulties to achieve success by encouraging their strength, knowing their weakness, understanding them well and developing learning strategies to deal with specific difficulties in them. Educational programmes for learning disabled children include behavioural intervention, cognitive intervention, individual attention, adequate motivation, restoration and development of self confidence, development of good work habits, elastic curriculum, remedial instruction, healthy environment, periodical medical check-up, multi-sensory approach and direct instruction.

Psycho-social variables encompass psychological and sociological factors that have paramount importance in one’s life. There is a wide spread recognition that children with learning disability may experience social and emotional problems because of their difficulties in learning. They experience stress, anxiety, depression, low self concept, low achievement motivation, poor socio-personal adjustment etc. Psycho-social factors like achievement
motivation, self-concept, social adjustment, personal adjustment, home environment etc., affect the academic achievement of learning disabled students. Raising academic performance of students to optimal levels involves providing appropriate learning experience, developing proper study habits and study skills, developing positive self-concept, increasing motivation using appropriate teaching techniques, encouraging positive teacher-pupil relationship and so on.

Different researches regarding scholastic backwardness in general have taken up various studies. However, comprehensive research works focusing on those closely related psychosocial variables in learning disabilities are limited in India and such researches are the need of the hour. The present study is an attempt in this direction.

6.2 Title of the Problem

“Psycho-Social Variables of Elementary School Children with Learning Difficulties in Relation to their Academic Achievement”

6.3 Operational Definitions of the Terms used in the Study

Under this subhead, the meaning and definition of the key terms used in the study along with the operational definitions of the terms used in the investigation are listed out.

Psycho-Social Variables

The Webster’s Encyclopaedic Unabridged Dictionary (1996) defines ‘Psycho-Social’ as “of or pertaining to the interaction between Social and Psychological factors”.

The term ‘Psycho-Social’ can be used to describe the unique internal processes that occur within the individual. It refers to one’s psychological development in interaction with a social environment (Erickson, 1950).

The online Oxford English Dictionary (2008) defines the term ‘Psycho-Social’ as “pertaining to the influence of social factors on an individual’s mind or behaviour, and to the interrelation of behavioural and social factors”.

In this study ‘Psycho-Social Variables’ refer to Psychological and Social aspects of an individual’s development. The areas included under Psycho-Social Variables in this study are:

(a) Self concept

(b) Achievement motivation

(c) Personal adjustment

(d) Social adjustment

(e) Home environment

**Self concept**

The Webster’s Encyclopaedic Unabridged Dictionary of the English Language (1996) defines ‘Self concept’ as “the idea or mental image one has of oneself and one’s strengths, weaknesses, status etc”.

According to Byrne (1984) “Self concept is the perception of ourselves involving our attitudes, feelings and knowledge about our skills, abilities, appearance and social acceptability”.

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In the present study ‘Self concept’ refers to how a person sees, describes, evaluates and identifies himself/herself in the environment.

*Achievement motivation*

Vidler (1997) defines ‘Achievement motivation’ as “a pattern of planning, of actions, and of feelings connected with striving to achieve some internalized standard of excellence in performance”.

In the present study, ‘Achievement motivation’ refers to the desire to meet the standard of excellence in learning academic subjects, to outperform others and to accomplish difficult task.

*Personal adjustment*

‘Personal adjustment’ has been described by Lowrey (1947) as having positive aspects, inner emotional security, feeling of personal adequacy, and of being successful, happiness in personal relations, a realistic evaluation of the self, adaptability, acceptability and acceptance of one’s own limitations.

In this study, ‘Personal adjustment’ refers to a state of being in which the individual is in harmonious relationship with one’s own self and to the environment.

*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”.

Thompson and Gardner (1959) defines ‘Social adjustment’ as “the process where by the individual attempts to maintain his security, comfort,
states or creative inclinations in the face of the ever changing conditions and pressures of his social environment”.

The term ‘Social adjustment’ in this study refers to the extent to which an individual’s personality functions efficiently in the world of people.

**Home environment**

Home environment refers to the conducive environment provided by the parents for the success of the child in academics and in personal life. In the present study, ‘Home Environment’ refers to learning facilities at home, parental acceptance, cultural level of the family and parent-child interactions.

**Elementary School Children**

The Webster’s Encyclopedic Unabridged Dictionary of the English Language (1996) defines elementary school as, “the lowest school giving formal instruction”.

The Oxford English Dictionary (1933) defines elementary school as, “one in which primary instruction is given”.

Elementary school children are the children studying in class I to VII.

In this study, ‘elementary school children’ refers to VI standard children from the selected schools of Kottayam District in Kerala State.

**Learning Difficulties/ Disabilities**

‘Learning Difficulties’ and ‘Learning Disabilities’ are used synonymously. In the Western context, particularly in European Countries, the term ‘Learning Difficulties’ is used in the place of ‘Learning
Disabilities’. In the American context, the term ‘Learning Disabilities’ is used in the place of ‘Learning Difficulties’. In this study ‘Learning Difficulties’ is used synonymously in the place of ‘Learning Disabilities’. Basically these two are the same in the operational terms.

The Webster’s Encyclopedic Unabridged Dictionary of the English Language (1996) defines ‘Learning Disability’ as “a disorder, as dyslexia, usually affecting school age children of normal or above normal intelligence, characterized by difficulty in understanding or using spoken or written language, and thought to be related to impairment or slowed development of perceptual motor skills”.

Samuel Krik (1963) who coined the term ‘Learning Disabilities’, defines ‘Learning Disability’ as a retardation, disorder or delayed development in one or more of the processes of speech, language reading, writing, arithmetic or other school subjects resulting from psychological handicap caused by a possible cerebral dysfunction and/or emotional or behavioural disturbances. It is not the result of mental retardation, sensory deprivation or cultural and instructional factors.

The National Joint Committee for Learning Disabilities (1981) defines: “Learning Disabilities is 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 and mathematical abilities. These disorders are intrinsic to the individual and presumed to be due to the central nervous system dysfunction. Even though a learning disability may occur concomitantly with other handicapping conditions, it is not the result of those conditions or influences”.

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In the present study, ‘Learning Difficulties’ is the term applied to the difficulties in Reading, Writing, Spelling and Arithmetic of VI standard children.

**Academic achievement**

It is the knowledge obtained or skill developed in the school subjects, usually designed by test scores or by marks assigned by the teacher or by both (Good, 1945).

‘Academic achievement’ is conceptualized as, ‘that encompasses the children’s ability and performance; it is multi dimensional; it is intricately related to human growth and cognitive, emotional, social, and physical development; it reflects the whole child; it is not related to a single instance, but occurs time and levels, through a student’s life in public school and on to post secondary years’ (Steinberger, 1993).

In this study ‘Academic achievement’ refers to the marks obtained by the VI standard children in the terminal examination. District Project Office working under Sarva Shiksha Abhiyan (SSA) set question papers for the terminal examination for all the schools in Kerala State. The children’s achievement in the terminal examination is referred to as academic achievement in the present study.

### 6.4 Objectives of the Study

The study has been designed with the following objectives.

1. To develop diagnostic tests to identify a) Reading difficulties b)Writing Difficulties c)Spelling Difficulties in English and d)Arithmetic Difficulties of VI standard children.

2. To identify the Reading, Writing and Spelling Difficulties in English of VI standard children.
3. To identify the Arithmetic Difficulties of VI standard children.

4. To find out significant difference if any, in the Reading, Writing, Spelling and Arithmetic Difficulties of VI standard 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 the school and the Medium of instruction.

5. To find out the level of Achievement motivation, Self concept, Personal adjustment, Social adjustment and Home environment of children with learning difficulties.

6. 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 learning difficulties.

7. To predict to how far and to what extent the independent variables (Achievement motivation, Self concept, Personal adjustment, Social adjustment and Home environment) are influencing the dependent variable (Academic achievement).

6.5 Assumptions of the Study

1. It is possible to develop diagnostic tests to identify the Reading, Writing and Spelling difficulties in English and Arithmetic difficulties of VI standard children.

2. The number of children with Reading, Writing and Spelling difficulties may vary.
3. The difficulty faced by the children in different components of Mathematics may vary.

4. The children may vary in Self concept, Achievement motivation, degree of Personal adjustment, degree of Social adjustment and Home environment.

5. It is possible to predict to how far and to what extent the independent variables (Achievement motivation, Self concept, Personal adjustment, Social adjustment and Home environment) are influencing the dependent variable (Academic achievement).

6.6 Hypotheses of the Study

1. There exists a significant difference in the Reading, Writing, Spelling and Arithmetic difficulties of VI standard children due to variations 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, the Type of management of the school, the Locale of school and the Medium of instruction.

2. There exists significant relationship between Achievement motivation and the Academic achievement of children with learning difficulties.

3. There exists a significant relationship between Self concept and the Academic achievement of children with learning difficulties.

4. There exists significant relationship between Home environment and the Academic achievement of children with learning difficulties.

5. There exists significant relationship between Personal adjustment and the Academic achievement of children with learning difficulties.
6. There exists significant relationship between Social adjustment and Academic achievement of children with learning difficulties.

6.7 Scope of the Study

The language and learning disabilities, which refer to developmental problems in reading, writing and arithmetic (the three Rs’ of the classroom that are essential to learning as well as everyday functioning) are also termed dyslexia, dysphasia and dyscalculia. They exert concomitant effects on academic performance and their reverberation will inevitably be felt in wider educational setting and interactive processes. In addition, these disabilities have both pervasive and cumulative effects on academic and psychosocial development of the child. Learning disability is a serious challenge in the way to universalize elementary education because it impairs the abilities to learn the basic skills of reading, writing, spelling and arithmetic. When learning disabilities are not properly diagnosed and adequately treated in childhood, these become lifelong disabilities.

The present study aims at identifying the reading, writing, spelling and arithmetic difficulties of elementary school children. For this, the study attempts to develop diagnostic tests in Reading, Writing, Spelling and Arithmetic Difficulties. Secondly, the study attempts to investigate the influence of certain variables (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, Type of management of the school, Locale of the school and Medium of instruction) on children’s reading, writing, spelling and arithmetic difficulties. This study mainly focuses on providing an insight into the psycho-social aspects of children with learning difficulties and the nature and extent of its relationship with academic achievement. In other words, it focuses its attention to find out the relationship between certain
psycho-social variables (achievement motivation, self concept, personal adjustment, social adjustment and home environment) and the academic achievement of children with learning difficulties. Lastly, the study aims to predict to how far and what extent the aforesaid independent variables are influencing the dependent variable.

The study is expected to throw light on the various aspects of the most pressing issues in the present educational system. The investigation of psycho-social aspects that might affect academic achievement will help to reveal many useful insights and it will increase the quality of knowledge regarding this condition. Further, vivid recommendations could be made to schools, families and government policy makers on different issues of this condition so that the indexed students would be helped out of their problems.

The networking of the psychologists, social workers, teachers and parents could be provided strongly so as to give those students a backing of primary, secondary and tertiary social support system. The findings would help those who are involved with outreach programmes to create an awareness about the different aspects of learning difficulties. The study might endure as a starting point for further investigations in this field. As a conclusion the investigator hopes that the study would be of great use to the students concerned, teachers, family members and all the others who are interested in the field of education and the welfare of students with learning difficulties.

The focus of the study has been mainly on the psycho-social aspects of learning disabled children. Since the satisfaction of psycho-social needs helps in maintaining good mental health, which is considered as the main component of academic achievement, the psycho-social aspects of the learning disabled children can by no means be ignored. It is hoped that the
findings of the study would be of immense help, both theoretically and practically in formulating guidelines for the development of the learning disabled children at primary stage.

6.8 Need and Importance of the Study

Every child is very precious and needs to be carefully and lovingly nurtured to be able to develop to his/her fullest capacities. There are children who have special needs, for whom the nature and intensity of required care are even more significant. In spite of having average or above average intelligence many children perform poorly in academics. These children may face difficulties in one or several areas of academics such as reading, arithmetic, spelling and writing. These children are described through a wide variety of labels such as dyslexics, learning disabled, slow learners, minimally brain damaged and educationally handicapped.

Learning disability is a generic term that refers to a heterogeneous group of disorders manifested by significant discrepancies in the acquisition and use of listening, reading, writing, reasoning or mathematical abilities. These disorders can occur across the life span. Problems in self regulating behaviours, social perception and social interaction may exist with learning disability. Although learning disability may occur concomitantly with other handicapping conditions (for eg: sensory impairment, mental retardation, serious emotional disturbances) or with intrinsic influences (such as cultural differences, insufficient or inappropriate instruction) they are not the result of these conditions or influences.

Learning disability is a kind of behavioural deficit almost always associated with academic performance that can be remediated by precise individual instructional programming. Educationally a learning disabled is one whose achievement is less than his/her expected level of achievement.
Even though differences exist in the definition offered by different individuals and organisations, three common components are observed; viz. ability achievement discrepancy, psychological process disorder and central nervous system dysfunction. It is increasingly suspected that the longer the learning disabilities go undetected, the more severe will be the personality problems.

The presence of learning difficulties in a child with normal intelligence creates emotional problems in terms of a sense of shame and guilt. These in turn may lead to lowered self-esteem and poor confidence in one’s capabilities. Emotional and behavioural disorders involve inappropriate social interactions and transactions between the child and social environment. Stevenson (1996) appropriately states that psychological and behavioural problems have often been interpreted as a consequence of these disabilities. Grasham and Elliot (1980), Margaret (1989) and Rourke (1988) came out with their finding that peers, teachers and parents tend to display negative attitude towards the children with language and learning disabilities. Bryan (1997) predicted the risk of social rejection for such children, whereas Ritter (1989), Rourke and Furest (1995) found them to be lacking in social competence. They further added that these children might react to the academic failure and social rejection with frustration, anger and acting out behaviour. These children receive lower rating in cooperation, coping, tactfulness, responsibility and other such attributes.

Although there are numerous cultural, environmental and psychological factors associated with low achievement, the researcher had to limit her study to five variables namely self concept, achievement motivation, home environment, personal adjustment and social adjustment. There are evidences for the fact that some of the children with learning disabilities have lower self esteem with regard to their academic
performance. Licht and Kistner (1986) found that learning disabled children enter into a vicious cycle of academic failure and low motivation that work against them. Similarly, family interactions, parental attitude towards learning, child management practices, parenting styles, social class and cultural values adopted by the family are some of the factors that can influence children’s learning. Jarvis and Justice (1992) revealed that learning disabled children had poor adjustment which in turn leads to psychological and behavioural problems.

Low self concept, poor motivation and lack of confidence coupled with social rejection by peers, teachers and adults can result in emotional, social and behavioural maladjustment. This may lead to psychological distress even to chronic depression and anxiety. Educationalists have already conducted research studies to measure the nature and extent of relationship of psycho-social variables on academic achievement among normal students. But few studies have been undertaken in the area of learning difficulties with reference to psychological variables. This study therefore, also aims at providing insight on certain psychological variables of learning disabled and the nature and extent of its relationship with academic achievement.

6.9 Methodology

The Survey method is used in this study.

6.9.1. Construction of Research Tools

To identify the learning disabilities / difficulties in English and Arithmetic of elementary school children, the investigator developed the following diagnostic tests.

i. Reading Difficulties Diagnostic Test
ii. Writing Difficulties Diagnostic Test

iii. Spelling Difficulties Diagnostic Test

iv. Arithmetic Difficulties Diagnostic Test

Reading Difficulties Diagnostic Test is designed to gain information on the learner’s status in different reading aspects of English like phonic awareness, phonics, fluency, vocabulary, comprehension, visual discrimination and perceptual abilities. The test has the components covering the aspects such as letter identification, word attack, analogues, sound identification, oral reading, word recognition, rhyming words, comprehension, Segregate the sounds and cloze test.

Writing Difficulties Diagnostic Test is based on motor skills like fine motor skills, laterality and directionality. The Writing Difficulties Diagnostic Test consists of the components such as letter formation, letter slope, letter size, letter space, word space, letter-word alignment and letter joints.

Spelling Difficulties Diagnostic Test assesses the spelling difficulties of the students. Spelling errors include phonetic errors, motor errors and rule based errors. The Spelling Difficulties Diagnostic Test is developed on the components such as circle the correct spelling, word recognition, plurals and change the gender, track the words, prefix and suffix to the roots, spell and match the words, finding the words by clues and dictation.

Arithmetic Difficulties Diagnostic Test is based on verbal dyscalculia, practognistic dyscalculia, lexical dyscalculia, graphical dyscalculia, ideognostical dyscalculia and operational dyscalculia. The Arithmetic Difficulties Diagnostic Test covers the following components; fundamental mathematics, test related go geometry, place value task, task related to mathematic language, fractions and decimal, money transactions, sign task,
word problem, selection of proper unit, conversion from one unit to another, task related to measurement and time calculation.

The developed diagnostic tests have been given to the teachers who have special training in the concerned subject with a request to review the test items and their suitability and relevance to identify the students with reading, writing, spelling and arithmetic difficulties. Based on their suggestions certain items of the tests are received, incorporated or deleted. Thus the developed diagnostic test has 50 questions carrying 50 marks. Each correct answer of the test is given a mark and each wrong answer a zero. The Reading, Writing, Spelling and Arithmetic Difficulties Diagnostic Test with their scoring keys are given in the Appendices I, I(a); II, II(a); III,III(a); IV and IV(a).

Achievement Motivation Scale has been developed by the investigator to assess the achievement motivation of students with learning difficulties. The different dimensions selected for the Achievement Motivation Scale are academic motivation, pursuit of excellence, status aspiration, acquisitiveness and need for achievement.

The developed Achievement Motivation Scale is given to teacher educators teaching in various B.Ed colleges with a request to review the test items and point out the appropriateness of each item to test the achievement motivation of learning disabled students. Based on their suggestions, certain items were modified. The scale consists of sixty items both positive and negative. It is a 3 point scale following a response pattern of Yes, Undecided and No. The score for each positive item is in a sequence of 2, 1, 0 and 0, 1, 2 for negative items. Achievement Motivation Scale and answer sheet are given in the Appendix V and V (a).
Like wise, the Home Environment Inventory also has been developed by the investigator to evaluate the home environment of the children with learning difficulties. The different dimensions selected for the Home Environment Inventory are learning facilities at home, parental acceptance, cultural level of the family, parent-child interactions. The developed Home Environment Inventory was given to teacher educators teaching in various B.Ed colleges with a request to review the test items and their suitability to identify the home environment of students. Based on their opinion, certain items were received and certain items were incorporated or deleted. The final Home Environment Inventory consists of fifty items. The subject is asked to put a cross mark ‘X’ in the box ‘Yes’ if he agrees and put the cross mark ‘X’ in the box ‘No’ if he disagrees. One mark is assigned to each correct answer. The Home Environment Inventory and answer sheet are given in the Appendix IX and IX(a).

Apart from the above said tools, Raven’s Coloured Progressive Matrices Test (J.C. Raven, 1986), Self Concept Scale (Dr. Sr. Therese Koottiyaniyil, 1994) Personal Adjustment Inventory for Upper Primary School Children (Dr. P.J. Pouluse and Minimol Antu Srambickal, 1999), Social Adjustment Inventory for Upper Primary School Children (Dr. P.J. Pouluse and Minimol Antu Srambickal, 1999) have also been used in the study. The investigator made a few changes in the Self Concept Scale, Personal Adjustment Inventory for Upper Primary School Children and Social Adjustment Inventory for Upper Primary School Children inorder to make it suitable for the present study. These tests and answer sheets are given in the Appendices VI, VI(a); VII, VII(a);VIII, VIII(a) respectively. The students’ achievement in the terminal examination is referred to as academic achievement in the present study.
The detailed procedure adopted for establishing the reliability and validity of the research tools used in the study are explained in Chapter- IV.

6. 9.2. Identifying the Children with Learning Difficulties

The learning disabled children were identified on the basis of a three phase process. They are

i) identifying phase

ii) scientific confirmatory phase

iii) counter check phase

In the first phase the teacher’s observation on the children’s curricular activities was given due consideration. In addition to this, the quarterly and half yearly examination results were analysed by the investigator. The children who got very less marks for English and Mathematics examination were taken into consideration.

In the second phase, they were confirmed through the scientific confirmatory test i.e ‘Raven’s Coloured Progressive Matrices (1986)’. The score obtained by each student was noted down. In the confirmatory test, those who got 5th, 25th and 25th to 75th percentile point score and the observatory comments of the class teacher and the poor performance for English and Mathematics in the terminal examination were considered as students with learning difficulties in this phase. In the third phase, the identified learning disabled children were subjected to the diagnostic tests to identify their specific learning difficulties in Reading, Writing, Spelling in English and in Mathematics. The children who have secured below 35% in each test is labelled as learning disabled. In this three phased process, 224 students were identified with learning difficulties.
6.9.3. **Locale of the Study**

The locale of the study is Kottayam District of Kerala State. Kottayam district consists of 5 taluks namely Kottayam, Vaikom, Changanacherry, Meenachil and Kanjirappally. The locale of the schools is divided into two categories. The schools located in the Municipal areas of Kottayam district are considered as urban schools. The rural schools include the schools located in the panchayat area of Kottayam district. There are 203 upper primary schools and 241 high schools in Kottayam district.

6.9.4. **Sample of the study**

A sample is a finite number of observation or cases selected from all the cases in a particular universe, often assumed to be representative of all total group from a universe of which it is a part (Good, 1972). 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 Kanjirapally. The details regarding the schools were obtained from the office of the Assistant Educational Officers of the above five taluks of Kottayam district. From the 203 upper primary schools in Kottayam District the investigator selected 22 schools which comprise 7 government schools 8 aided schools and 7 unaided schools by using simple random technique. There were 2312 students studying in the selected schools. In the second phase, learning disabled students were identified from each school based on teacher’s observation, R.P.M test scores, achievement test scores in English and Mathematics and diagnostic test scores of reading, writing, spelling and arithmetic diagnostic tests. There were 224 VI standard children identified with reading, writing, spelling, arithmetic disabilities and LD together. The details of the sample are given in chapter-IV.
6.9.5. *Data Collection*

The investigator obtained permission for data collection sufficiently early from the heads of schools from where data had to be collected. In the first phase of data collection, the children with learning difficulties were identified using the three stages mentioned earlier viz. identification phase, scientific confirmatory phase and counter check phase. To these children the other tools, namely, Achievement Motivation Scale, Self Concept Scale, Personal Adjustment Inventory, Social Adjustment Inventory, Home Environment Inventory were administered. The tools were administered in the morning sessions. The researcher gave a brief explanation to the children regarding the purpose for which the data was collected and requested their co-operation. The rules and procedures prescribed for each test were strictly followed.

6.9.6. *Statistical Techniques used in the Study*

The obtained data were analysed by using appropriate techniques such as Mean, Standard deviation, Mean ± 1 SD, t-test, F-test, Correlation and Stepwise multiple regression analysis.

6.10 *Findings and Conclusions*

An overview of results and discussion in Part - I, Part - II, Part - III, Part - IV and Part - V reveals the following.

**PART – I**

1. Most of the students face more than one difficulty in the areas of reading, writing, spelling and arithmetic (refer table - 1).

2. In reading difficulties, a great majority of students appear to have difficulties in comprehension (98%), cloze test (96%), analogue (84%),
sound identification (82%), completion of rhyming words in the pictures given (81%), segregation of words based on sounds (75%), oral reading (72%), word recognition (68%) word attack (55%) and letter identification (20%) tasks (refer table - 2).

3. Students with writing difficulties in English face difficulties in letter word alignment (97.84%), letter joints (97.70%), letter size (84.62%), letter slope (70.33%), word space (48.39%), letter space (44.09%) and letter formation (41.94%). Refer table - 3.

4. In spelling difficulties, students experience difficulties in the tasks – circle the correct spelling (99%), task related to prefix and suffix (90.09%), track the words (86.16%), plural and change the gender (82.14%), word recognition (77.92%), spell and match the words (74.55%), finding words with clues (60.07%) and dictation (62.95%). Refer table 4.

5. In arithmetic difficulties, students experience difficulties in task related to measurement (99.41%), task related to mathematical language (98.83%), word problem (98.24%), task related to geometry (86.55%), money transaction (82.45%), place value task (74.26%), fraction and decimal (71.92%), sign task (69.59%), task related to fundamental mathematics (56.72%), selection of proper unit (56.14%), conversion of one unit to another (48.53%) and time calculation (36.84%). Refer table 5.

PART – II

6. Gender has significantly influenced the reading, spelling, arithmetic and learning difficulties put-together, whereas it has not significantly influenced their writing difficulties. Boys have experienced more
difficulties in reading, writing and spelling than girls. Girls experience more difficulties in mathematics than boys (refer table - 6).

7. Community of the student has significant influence on spelling difficulties. On the other hand, it has no significant influence on their reading, writing, arithmetic and learning difficulties put together. The spelling difficulties of SC children are more compared to BC and FC children. SC and Backward community children experience more learning difficulties than Forward communities (refer table - 7).

8. Father’s educational qualification has significant impact on their children’s reading, writing, spelling, arithmetic and learning difficulties put together. Further, children who have fathers with higher educational qualification have less learning difficulties (refer table - 8).

9. Mother’s educational qualification has significantly influenced the reading and spelling difficulties in English. On the other hand, it has no significant impact on writing, arithmetic and learning difficulties put together. The children who have mothers with higher qualification have less learning difficulty in reading and spelling. Further, the mean value indicates that children whose mothers with primary educational qualification experience more learning difficulties than those children with mothers having higher qualification. (refer table-9).

10. Father’s occupation has significant influence on their children’s reading, writing, spelling, arithmetic and learning difficulties put together. The children with employed parents have less reading, writing, spelling, arithmetic and learning difficulties put together than business and employed fathers (refer table - 10).

11. Mother’s occupation has significantly influenced the children’s writing difficulties, spelling difficulties and arithmetic difficulties. Contrary to
this, it has not significantly influenced the reading difficulties and learning difficulties put together. Children with employed mothers have less learning difficulties than self employed and unemployed mothers (refer table - 11).

12. Number of children in the family has not significantly influenced the students’ reading difficulties, writing difficulties, spelling difficulties, arithmetic difficulties and learning difficulties put together. The mean value indicates that children from families with 3 or more than 3 face more learning difficulties than children from families with 1 or 2 children (refer table - 12).

13. Students’ Exposure to different media has significant influence on reading, writing, spelling and arithmetic difficulties, whereas it has no significant influence on learning difficulties put together. The children exposed to radio and T.V alone are experiencing more learning difficulties than those who have exposure to radio, T.V and magazine together (refer table - 13).

14. Location of the school has a significant influence on reading difficulties, writing difficulties, spelling difficulties, arithmetic difficulties and learning difficulties put together. Further, urban school students have experienced less learning difficulties than rural school students (refer table - 14).

15. Type of management of the school influences significantly reading, writing, spelling and arithmetic difficulties; whereas it has not significantly influenced the learning difficulties put together. Unaided school students experience less learning difficulties in reading, spelling, arithmetic and learning difficulties put together than their
counterparts studying in aided and government schools (refer table - 15).

16. Medium of instruction of the students influences significantly their writing difficulties and arithmetic difficulties. Whereas it has not significantly influenced the reading, spelling difficulties and learning difficulties put together. Malayalam medium students are facing more learning difficulties than English medium students (refer table - 16).

PART – III

17. The group under study is a heterogeneous one with respect to achievement motivation. Majority of children under the category of reading, writing, spelling, arithmetic and learning difficulties put together are with moderate level of achievement motivation. Like that many children are with low level of achievement motivation. In high level achievement motivation the percentage is very less (refer table - 17).

18. A large number of children with learning difficulties come under moderate level of self concept. Further, it is noted that more than 70% of children under the category of reading, writing, spelling, arithmetic and learning difficulties put together are with moderate level of self concept. Almost equal percentage of children have low and high level of self concept (refer table - 18).

19. The group under study is a heterogeneous one with respect to personal adjustment. Majority of children are with moderate level of personal adjustment. Further, it is also noted that more than 70 percent of children with reading, spelling, arithmetic difficulty and learning difficulties put together fall under moderate level of personal adjustment. 59 percent of children with writing difficulty are with
moderate level of personal adjustment. Only less number of children with reading, writing, spelling and arithmetic difficulty are under high level of personal adjustment (refer table - 19).

20. Majority of children under various categories of learning difficulties come in moderate level of social adjustment. A few students possess low and high level of social adjustment. Further, it is noted that more than 50 percent of children under the category of reading, writing, spelling, arithmetic difficulties and learning difficulties put together are with moderate level of social adjustment (refer table - 20).

21. The group under study is a heterogeneous one with respect to home environment. Majority of children have moderately favorable home environment. Further, it is noted that more than 80 percent of children with arithmetic difficulties and all the four types of learning difficulties have only moderately favorable home environment. Surprisingly no children fall under highly favorable home environment in the category of writing difficulty and all the four types of learning difficulties. It can also be observed that 11 percent of children under reading difficulties and 6 percent of children under learning difficulties put together fall in less favourable home environment (refer table - 21).

PART – IV

22. There is a significant positive correlation between achievement motivation and academic achievement in English, Mathematics and other subjects (refer table - 22).

23. There is a significant positive correlation between self concept and academic achievement in English, Mathematics and other subjects (refer table - 22).
24. There is a significant positive correlation between personal adjustment and academic achievement in English, Mathematics and other subjects (refer table - 22).

25. There is a significant positive correlation between social adjustment and academic achievement in English, Mathematics and other subjects (refer table - 22).

26. There is a significant positive correlation between home environment and academic achievement in English, Mathematics and other subjects (refer table - 22).

PART – V

27. The independent variable ‘achievement motivation’ contributes 69.7 percent followed by home environment 7.1 percent contribution and self concept 3.8 percent contribution are the foremost predictors to academic achievement in English. On the other hand, the contribution of social adjustment and personal adjustment (0.1 and 0.5 percent) are very limited (refer table - 23).

28. The independent variable ‘achievement motivation’ is the foremost predictor of academic achievement in Mathematics followed by 13.8 percent contribution by self concept and 11 percent contribution by personal adjustment. Social adjustment has a contribution of 5.2 percent. Even though, the variable home environment has a very minimum contribution of 0.4 percent, it is also a predictor of academic achievement in Mathematics (refer table - 24).

29. The independent variable ‘achievement motivation’ is the foremost predictor of academic achievement of subjects other than English and Mathematics. It is followed by social adjustment which has a
contribution of 12.5 percent. Personal adjustment has a contribution of 7.3 percent and that of home environment is 4.3 percent. Even though the variable self-concept has a very minimum contribution of 1.8 percent, it is also a predictor of academic achievement in other subjects (refer table - 25).

6.11 Implications of the Study

1. This study reveals that out of 2312 VI standard children 224 children are identified as children with learning difficulties. It denotes that 9.68% of children are experiencing learning difficulties. Hence a comprehensive survey can be conducted by National Council of Education Research and Training (NCERT), State Council of Education Research and Training (SCERT), District Institute of Education and Training (DIET) and English and Foreign Language University (EFLU) at different levels to get the holistic picture about the prevalence of children with learning difficulties. Such survey will facilitate in drawing the need based training programmes to the teachers.

2. The study reveals that identifying different aspects of learning difficulties in English is essential for early intervention. So grade level reading, writing and spelling diagnostic tests can be prepared by the NCERT, SCERT and DIET. Such tests should be supplied to all the schools so that the teachers can make use of these tests for identifying learning difficulties. Pre-service training programmes, special training on the teaching of English should be given to all teachers who handle English to equip them with the different aspects of the learning difficulties to arrest such difficulties at the early stage itself.

3. The study reveals that the students face learning difficulty in different aspects of mathematics. Teachers should identify the learning
difficulties in Mathematics using diagnostic test. Teachers must first determine what the starting point is to be, whether prerequisite skills and concepts have been acquired and whether these can be applied spontaneously to real life problems.

Teachers and parents should teach the children having learning difficulty in mathematics using concrete experiences. The concept of telling time, fraction, geometry and measurement are more easily understood when concrete manipulative objects are used. After mastering concrete concepts they may be taught abstract concepts. Teachers and parents should relate mathematics to real life problems. Teachers should design and develop instructional packages to teach the children having learning difficulty in mathematics. Use analogies to emphasise numerical relationship. Teacher can develop ‘Life Skill Maths’ instructional packages covering topics like handling money, fractions, decimals and hundreds, word problems, miscellaneous skills (time, age, graphs) and these real situations will supplement and provide reinforcement to the students.

4. The study reveals that boys experience more learning difficulties in English than girls. But girls face more learning difficulty in Mathematics than boys. Hence teachers should give stress in giving appropriate teaching learning activities to both of them. The community of the children influences spelling difficulties. SC/ST children are experiencing more difficulty in the area of spelling. So the parents and teachers should plan for compulsory guided study hour in school and after school hours.

The parents’ educational qualification and occupation influence the learning of children. The children of parents having low educational qualification and unemployed experience more learning difficulties. Extension lectures should be organised for these parents having low educational status. They should be equipped with guidelines for helping
their children to overcome these difficulties. Teachers must take care to transmit knowledge, attitude, processes and vocabulary to the students which they usually lack in the home situation. The children’s exposure to different media like Radio, TV and Magazines influences their reading, writing, spelling and arithmetic difficulties. Exposure to different media makes the students more educationally inclined.

Location of the school has influence on the students’ reading, writing, spelling, arithmetic and learning difficulties put together. The students of rural schools experience more difficulties than their counterparts. Hence these students should be provided with adequate facilities to practice English and Mathematics by equipping the school libraries with more books, periodicals and computer assisted instructions.

Medium of instruction influences the writing and arithmetic difficulties of children. Malayalam medium students face more learning difficulties. Teachers should take initiative in giving special educational facility and individual attention to these students. The type of management of schools influences the reading, writing, spelling and arithmetic learning difficulties. Unaided school students experience less learning difficulties. The advantages associated with unaided schools are that they have strict code of discipline, better infrastructural facilities like library, laboratory, classroom furniture, playground, transportation etc. Educational administrators should take remedial measures to meet the needs of economically poor students in the Government and Aided schools by giving financial assistance, free text books, school uniforms, mid-day meals, scholarships and free transport facilities apart from extra coaching within and out of school hours.

5. The LD children possess low and moderate achievement motivation, self concept, personal adjustment and social adjustment.
Achievement motivation has been observed as a strong psychological factor which helps in the all-round development of the personality of the individual. As the students possess low and moderate achievement motivation, it becomes imperative on the part of teachers to take special attention to motivate them both intrinsically and extrinsically so as to engage them in long term achievement activities.

Self concept is essentially a system of attitude toward oneself. It is the summation of the ways by which one evaluates his own characteristics and behaviour. Every individual has a concept of self made up of his thoughts and feeling about himself. Self esteem is one of the most important dimension of the self concept and it is the most important key to behaviour. The extent to which we believe ourselves to be worthy, capable, significant and successful person affect our relationship with others and our achievement. So it is important to develop a positive self concept in the learner. Parents, teachers and peers are important influences on developing positive self concept in children especially in the early years. Love, care, appreciation and approval of those who mean to the child help to build positive self esteem, self confidence, sense of worthiness and capability which are necessary to maintain positive self concept.

Sound mental health has been observed as a prerequisite for good personal adjustment and social adjustment. This points out the significance of maintaining sound mental health among the student population. Students identified as having less personal and social adjustment may be exposed to guidance and counselling. In the case of needy students, the services of doctors specialised in this field may be made available. Awareness programmes should be given to parents to expose them to the need of sound mental health among their children. At least one psychologist should be appointed as consultant in each school. Guidance and counselling corners
should be made active and freely accessible to these children. The educational administrators should show vigilance in the active running of these counselling centres. Strategies to increase the mental health of students should be given to teachers through in-service courses. Extension lectures should be organised to parents to help them realise that good mental health of children is indispensable.

The study indicates that many of the children fall in less favourable and moderately favourable home environment. Home environment, namely the structure of the home, the educational background of the parents, the attitudinal dimensions of the home, the psychological climate of the home, the child’s position in the family etc do impact the learner. The high achievers generally show better home adjustment than their counterparts, which indicates that there is a close positive relationship between the home and school adjustment. Hence, it is of paramount importance that children be provided generously with love, warmth, understanding, appreciation and encouragement. Good educational background of parents and learning facilities are equally conducive to high academic achievement.

6. The study reveals that there is a significant positive correlation between achievement motivation, self concept, personal adjustment, social adjustment, home environment and academic achievement of LD children. Achievement motivation has a critical role in learning. Those with strong achievement motivation are not frustrated with failure in a task because it helps them determine more firmly to achieve a goal they set for themselves. They show a high degree of persistence and a strong desire for achievement in their field of activity. They frequently express high aspirations and need for achievement. High motivation is frequently reflected in high ambitions and aspiration for a career. A good, intimate and happy relationship between pupils and teachers is a very effective motivating force. Such teachers know
about a child’s mind, bodily conditions, background, capabilities and handicaps. With this knowledge they adapt work to interest, ambition and talents. This will lead to maximum development of pupils.

Self concept is a learned sense of self and is based on an individual’s perception of the regards he has received from outside his self, especially from the parents and other significant people. A person’s achievement is significantly related with his self concept. The greatest cause of maladjustment and low achievement are due to the withdrawal of affection and security by the parents, teachers and associates. The child is forced to grow into insecurity when he feels that those who mean most to him do not understand him or find fault with him at all times or punish him for the slightest offences or do not help him in his interest and to realise his aspirations.

The study reveals that there is a positive relationship between personal adjustment and social adjustment with academic achievement of LD children. Teachers, educational administrators and parents should become considerate to students with adjustment problems. Awareness campaigns may be organised through Parent Teacher Association and Mother Parent Teacher Association in school to make them aware about the ill effect of adjustment problems among students. State Council of Education Research and Training, the Department of Education, Colleges of Teacher Education and Institute of Advanced Studies in Education, teachers and professional organisations should take initiative in organising in-service programmes for teachers so as to help them internalise requisite knowledge to tackle effectively the adjustment problems of students. For better personal adjustment psychotherapeutic approach works well. Psychotherapeutic approach should build a feeling of success and establish a healthy psychodynamic relationship within the self. Teachers should take special
care to improve the social adjustment of students. To cater to this, instructional strategies may be designed giving accent to participatory approach, group work, peer teaching and in general democratic methods.

The study reveals that home environment and academic achievement of LD students are significantly positively correlated. Parents can play a significant role by helping LD children by monitoring their studies, giving positive reinforcement for overcoming these difficulties and removing frustration from their learning situation. Parental understanding, encouragement and interest are essential for better learning. Properly motivated and informed parents can assist the schools in helping the students with learning difficulties. Parents should look for, and encourage, their children’s strengths, interests and abilities, help them to use these as compensation for any limitations or disabilities. Parents should take them to libraries and encourage them to select and check out books of interest. Provide stimulating books and reading material around the house. Teachers should help them to develop self esteem and to compete with self rather than with others. Moreover parents should improve the conditions of home environment for their children’s academic achievement.

7. The results of stepwise multiple regression analysis clearly indicate the need for developing achievement motivation which is a strong predictor of academic achievement. Similarly, other psychological variables like self concept, personal adjustment, social adjustment and home environment also should be emphasised in order to overcome learning difficulties. The teacher and parents must be made aware of the variables that are predicted as potential contributors to academic achievement.
6.12 Limitations of the Study

1. The study is limited to VI standard children with learning difficulties.

2. The sample consists of 224 children with learning difficulties.

3. The basis for identification of learning difficulties is teachers’ observation, children’s academic achievement in English and Mathematics, students’ RPM percentile and scores on Reading, Writing, Spelling and Arithmetic Difficulties Diagnostic Tests.

4. The diagnostic test to identify Reading, Writing, Spelling and Arithmetic difficulties are teacher made.

5. Achievement Motivation Scale and Home Environment Inventory are the teacher made tools having their own reliability and validity.

6. Personal Adjustment Inventory for Upper Primary School Children, Social Adjustment Inventory for Upper Primary School Children and Self Concept Scale are teacher made and are adopted by the investigator for the present study.

7. The area of the study is limited to Kottayam district of Kerala state.

6.13 Suggestions for Further Research

1. A state level survey can be conducted to identify the psycho-social variables of learning disabled children in relation to their academic achievement.

2. Studies can be attempted to develop standardised diagnostic tests to identify children’s difficulties in different languages.
3. Studies can be made to know the study habit, extroversion-introversion, mental health, social maturity, social sensitivity etc. of children with learning difficulties.

4. Studies can be made on the attitude and awareness of the parents and teachers towards learning difficulties in children.

5. Studies can be attempted to identify the psycho-social variables of learning disabled secondary school students in relation to their academic achievement.

6. Studies can be attempted to identify learning difficulties of students in other Indian languages.

7. Studies can be made to develop remedial strategies to overcome reading, writing, spelling and arithmetic difficulties of LD children.

8. Studies can be attempted on the learning difficulties of children with multi-lingual background.

9. A state level survey may be conducted to identify the extent of children with types of learning difficulties at different levels i.e., primary, secondary and higher secondary.