CHAPTER 1
INTRODUCTION

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1.1 **Context of the study**

Persons with mental retardation form a heterogeneous group who differ in their levels of intelligence and proficiency in adaptive behaviour. Adaptive behaviour is the ability to cope with the demands of daily life and it is manifested in such things as sensory-motor, communication, self-help, socialization, academic and vocational skills (AAMR, 1992).

The most common feature of mental retardation is the failure to achieve age appropriate developmental tasks. These tasks involve processes of maturation in learning and social adjustment. These are commonly known as adaptive behaviour deficits. In the pre school years a slower rate of maturation is reflected in the delay seen in acquiring skill in the areas of motor, language, cognition, self-help, and socialization. At school age the learning difficulty inherent in persons with mental retardation is expressed in their poor academic achievement. In adulthood retardation may affect capacities for self-management, employment and fulfillment of adult interpersonal roles. Mental retardation is classified into four levels of severity – mild, moderate, severe and profound. More than 80 percent of all persons with mental retardation appear in mild category. Persons with mental
retardation have considerable inter individual differences. Many factors influence individual behaviour and functioning – chronological age, the severity of disability, its etiology and educational opportunities.

While providing education and training to children with mental retardation, our aim is to improve their adaptive behaviour and enable them to live in the most independent way possible. Therefore their curriculum areas include sensory-motor, communicational, self help, socialization, academic and vocational. Of these communication domain has a great priority and literacy (reading and writing) becomes an essential component of curriculum.

As the ability to read and write is essential for living today’s world, personal independence requires at least functional literacy. Failure to read restricts academic progress of normal school age population because proficiency in Maths, English or Social Studies depends on ability to read. Students who cannot read probably cannot spell, and both of these deficiencies will affect their writing activities. Reading is a skill very much related to a student’s self-concept. Proficiency in reading will help to avoid experiences that result in diminished self worth. At the same time this proficiency provides opportunities for good experiences within the activity of daily school life.
Adults who read well are regarded as intelligent, and educated. Adult who is deficient in reading ability may have serious adult adjustment problems. Faced with persistent failure and disapproval from family and peers and subjected to discrimination by employees, poor readers experience less self-satisfaction and lower opinion of themselves. Most jobs in our society also require at least minimal reading skills. Reading may even be the key to personal/social adjustment and to successful involvement in community activities.

Like all persons successful progress in literacy is crucial for children with mental retardation. Perhaps in no other area does the teacher need to place greater emphasis on skill development than in reading. Smith (1968) listed many noteworthy reasons to emphasize reading for children with mental retardation.

1. Inability to read will adversely affects other areas of instruction—arithmetic, social and personal development, communication and vocational placement. 2. Reading is a means of acquiring general information. If the youngsters have developed the basic skills of word identification and continue to expand their reading vocabulary, the additional information, acquired through independent reading allows for the generation of alternative solution to problems. 3. Reading requires transfer, generalization and elaboration and this will enable children to
solve problems in other areas of life. (4) Reading provides opportunities for pleasurable out-of-school activities.(5) The skill in reading decreases the possibility of the child experiencing physical harm and provides an insulation against severe social and emotional difficulties.

Langone (1986) stated that the major reason for teaching retarded learners reading and language arts skill is that these skills can help them to be more independent in home, work, leisure/recreation and community environments.

Although instruction in reading is essential for children with mental retardation to become independent, there has been so little work and interest in problems surrounding the teaching of reading to these children.

Research regarding how to promote effective reading skills among children with mental retardation is minimal. Review of literature on literacy development and mental retardation (for example Singh & Singh, 1986; and Westling, 1986) found people with mental retardation read well below their mental age. This is true even for children with mild mental retardation. Carter (1975) observed that majority of students with mild mental retardation read at lower levels than expected for their mental age. The reasons for this type of reading mentioned in the literature (Katims, 2000; 1996) are twofold. (1) Many practitioners de-
emphasize literacy learning and concentrate more heavily on social, personal and vocational related curriculum domains for students with mental retardation. (2) Traditional approach to literacy education for this population generally focused on the teaching of isolated subskills, which rarely engage students with well constructed, connected texts containing multiple sentences. Since people with disabilities have great difficulty in mastering this isolated sub skills they do not gain access to participation in the higher processes of using literacy as a tool for communication, obtaining information or reading for pleasure (Pikulski, 1994).

Conners (1992) noted that in regular education the focus of reading instruction is on gaining meaning from print, while the research on reading instruction for students with mental retardation focuses almost exclusively on the identification of individual words. Lev Vygotsky observed this trend earlier, that is, teach youngsters with mental retardation using only concrete methods which eliminated anything associated with abstract, symbolic, or constructivist thinking. Vygotsky called for instruction which advanced the development of symbolic and meaningful thought in these people (Vygotsky, 1978).

The goal of schooling for students with mental retardation may not have be to centre exclusively around social, vocational and daily
living skills while limiting literacy instruction to a set of functional words. An increasing number of investigators have demonstrated that children with mental retardation can move toward more advanced literacy if presented with opportunities to interact with words in context, and construct meaning from text (Katims, 1991; 1994; 1996; Hedrick et al., 1999; Katims and Pierce, 1995). Programmes of students can be designed from preprimary to transition into adulthood in a way that balances necessary daily skills, vocational skills with literacy instruction that emphasize reading and writing with meaning.

The avoidance of higher level skills for children with mental retardation may due to several reasons. The complexity of reading process itself might have influenced special educators who are reluctant to teach these skills. As Mann, et al., (1992) explained the student must master a series of complex skills effectively to perform and receive the maximum advantage from reading. These skills are: auditory-visual sensory input, auditory-visual perception, auditory-visual memory, language- symbolization, and input-output relationships. Reading is a dynamic process in which perception, memory, and language, must function harmoniously with each other.

Although the reading process seems complicated for persons with mental retardation, many authors recognized the potential of this group
of children. Langone (1986) clearly listed the reading potentials of mildly retarded learners in English language. According to him children with mild retardation can exhibit the following decoding skills. (1) Identifies and pronounces blends commonly found in words at the first, second and third grade levels. (2) Identifies and pronounces consonants when found in initial, medial, and final positions in words. (3) Identifies and pronounces both short and long vowels when found in words. (4) Identifies and pronounces digraphs and diphthongs when found in words at first, second and third grade levels. (5) Identifies and pronounces root words prefixes and suffixes. In the comprehension area they can: (1) demonstrate the meaning of a wide variety of words, (2) locate and describes the main idea of a story and can recall details, (3) follow written directions, (4) sequence events in logical order and (5) make basic inferences and evaluations.

Carney (1979) reported, mildly retarded children can achieve a level of literacy commensurate with their mental ages, if instruction is designed specifically to meet the child’s individual needs. Algozzine and Wood (1994) argued that instruction for students with mental retardation should include an early active focus on comprehension, use of wide variety of texts and cooperative grouping practices.
Considering the remarks of the authors mentioned above and evaluating the present practices in literacy instruction of children with mental retardation, the investigator felt that a detailed content is required in this area. This felt need is reflected in the preparation of content and tools for this research.

The recent literature and textbooks clearly explain the methods of instruction to be used in special education especially for students with mental retardation. The strategies/principles of instruction such as task analysis, prompting, shaping, chaining and reinforcement are implemented by special educators of all times. Similarly these strategies/principles are included in the curriculum of special education courses at diploma/degree/post graduate levels. But the usage of these strategies/principles can be seen mainly in non-academic activities such as motor, self-care and vocational skills. In this research it is assumed that the application of the above strategies/principles should be followed in all curriculum areas including literacy instruction. Thus the investigator name the current way of instruction as conventional approach without considering the presence or absence of its proper usage.

It is a well known fact that anything taught (acquired) in the classroom or training situation need to be generalized for a student with
mental retardation so that he/she will be able to apply the skill learnt to any appropriate situation. Similarly the student should be able to maintain the skill overtime even after training procedures are withdrawn. Therefore this study aims at development of literacy skills with special reference to generalization and maintenance.

Alberto and Troutman (1995) explained the terms acquisition, generalization and maintenance clearly. Acquisition the presence of the ability to do something the student wasn’t previously able to do and do it with some degree of accuracy. Maintenance is the ability to perform a response overtime without reteaching. Generalization is the expansion of student’s capability of performance beyond for those conditions set for initial acquisition. Two types of generalizations are (i) stimulus generalization and (ii) response generalization. Stimulus generalization occurs when responses that have been reinforced in the presence of specific stimulus occur in the presence of different but similar stimuli. A group of stimuli that should occasion the same response may be considered members of stimulus class. Response generalization occurs when changing one behaviour will result in changes in other similar behaviors. Such similar behaviours are often referred to as response class, and changes in untrained members of the response class, as response generalization.
The usual procedure for generalization and retention of literacy skills are worksheets, dictation, class tests etc. In this study it is planned to use a method- Literacy Rich Approach (LRA)- which is a combination of several factors. For designing this approach the investigator adopted the three components of literacy rich environment mentioned in a study by Katims (1991), that is, classroom library, writing centre, and daily story reading. This was the first empirical study in the research literature to investigate effects of literacy–rich environment on a group of young students with disabilities including mental retardation and found this approach to be quiet promising. With these components investigator added few more.

**Literacy Rich Approach (LRA)**

Literacy Rich Approach is an approach used for teaching, reading and writing. When using this approach, instead of large group, students will be taught in small groups. Classroom library with age and level appropriate books will be provided. Stories will be read daily by the teacher or other adults. In the classroom there will be a writing center where the students can practice writing. Students’ progress will be monitored continuously and positive feedback and continuous reinforcement will be given by the teacher.
1.2 Need and significance of the study

Special education of children with mental retardation has come a long way at the turn of this century. From total rejection from school system in the pre-independent India, movement towards acceptance of children with mental retardation in education stream with various educational provisions is an achievement in recent years. But the changes have not occurred as it should be. Even though six decades have completed since the first school for children with mental retardation established in India, Special education that gives weightage to academic skills, especially literacy instruction is still in its infancy. Majority of the special educators and special schools give weightage to personal, social and vocational skills in their curriculum.

Many special educators set minimal learning expectations about literacy skills. Further these educators hold the conviction that teaching reading and writing to children with mental retardation is an unrewarding and unrealistic goal. They feel that the time invested in this area could be put to better use in developing needed daily-living, vocational, and social skills. Reading and writing skills that could be acquired with great difficulty, and at the expense of more practical skills, would have little value in aiding these children’s life.
Instruction in daily living skills should be given due importance. Vocational and social skills are also essential to make the person self-dependent. At the same time academic instruction including literacy training, should not be ignored. Although there are many eminent educators in India, (e.g. Myreddy & Narayan, 1998) who have written textbooks on functional academics which give systematic guidelines on teaching literacy skills, majority of schools limit reading and writing instruction to functional words. Sight vocabulary is the main area of instruction. Skills such as reading and writing protective words (stop, walk, wait etc.) conventional signs (e.g. toilet, men, women etc.) cautionary words (e.g. danger, do not enter etc.) and names of common objects are some examples. In sight word approach, objects/pictures were paired with corresponding words and thus auditory and visual modalities are provided.

While looking at the education and training of children with mental retardation in Indian context, with proper instruction and coaching these children can exhibit outstanding performance in co-curricular activities such as yoga, music, dance sports and games. These students are winners of various cultural programmes, games and athletics at national and international levels. The systematic training, high motivation, and immediate reinforcement helps them to become out
standers. If this is possible, it is sure that children with mental retardation have the potential to progress in academic subjects especially in the area of literacy. In many textbooks of special education and mental retardation it is mentioned that children with mild mental retardation have the academic potential of successfully completing 4th grade (Langone, 1986). But reflecting on the past experience, effective instruction in this area is not done as it should be and thus academic area is not improved much. Many children who have completed schooling have problems to adjust to community activities due to the low literacy level. Considering the above facts, it is necessary to stress on the development of functional literacy for the children with mild mental retardation. Special educators should gain confidence to teach higher-level literacy skills (e.g. comprehension, phonological awareness, fluency etc.) to children especially those who are in the mild category. They should also develop the perseverance and willingness to take this as a challenge.

The conventional method used for literacy instruction is inadequate for proper maintenance and generalization of skills learnt. Therefore alternative methods for increasing the rate of maintenance and generalization are to be developed. Since reading - writing process itself is complicated for students with mental retardation, conventional
approach plus some effective procedure, which has the power to provide high motivation, is needed for retention and application of learned skills. Using a Literacy Rich Approach (LRA), which has many components, may found effective. In India, especially in the state of Kerala, no study in this regard is done so far.

1.3 Statement of the problem

The present study is designed to find out the effect of Literacy Rich Approach (LRA) in the language (reading & writing) development of children with mild mental retardation. The study aims to find out the effect of this approach in the following areas – vocabulary development, reading comprehension, phonological awareness, reading fluency, and writing skill development. Therefore the study is entitled “Effect of Literacy Rich Approach in the Language Development of Children with Mental Retardation.”

1.4 Objectives

1. To find out the effect of literacy – rich approach in the Vocabulary Development of children with mental retardation

2. To compare the vocabulary scores of children with mental retardation of the control and experimental groups in pre, post, parallel, and retention tests.
3. To find out the effect of literacy – rich approach in developing Reading Comprehension in children with mental retardation

4. To compare the reading comprehension scores of children with mental retardation of the control and experimental groups in pre, post, parallel, and retention tests.

5. To find out the effect of literacy – rich approach in the Phonological Awareness of children with mental retardation.

6. To compare the Phonological Awareness scores of children with mental retardation of the control and experimental groups in pre, post, parallel, and retention tests.

7. To find out the effect of literacy – rich approach in developing Reading Fluency in children with mental retardation

8. To compare the Reading Fluency scores of children with mental retardation of the control and experimental groups in pre, post, parallel, and retention tests.

9. To find out the effect of literacy – rich approach in the development of Writing skills of children with mental retardation

10. To compare the Writing Skill scores of children with mental retardation of the control and experimental groups in pre, post, parallel, and retention tests.
1.5 Hypotheses

The following major research hypotheses are stated:

1. There will be significant difference between the experimental and control groups in vocabulary development.

2. There will be significant difference among the vocabulary scores of children with mental retardation of the control and experimental groups in pre, post, parallel and retention tests.

3. There will be significant difference between the experimental and control groups in developing reading comprehension.

4. There will be significant difference among the reading comprehension scores of children with mental retardation of the control and experimental groups in pre, post, parallel and retention tests.

5. There will be significant difference between the experimental and control groups in developing phonological awareness.

6. There will be significant difference among the phonological awareness scores of children with mental retardation of the control and experimental groups in pre, post, parallel and retention tests.

7. There will be significant difference between the experimental and control groups in developing reading fluency.
8. There will be significant difference among the reading fluency scores of children with mental retardation of the control and experimental groups in pre, post, parallel and retention tests.
9. There will be significant difference between the experimental and control groups in developing writing skills.
10. There will be significant difference among the writing scores of children with mental retardation of the control and experimental groups in pre, post, parallel and retention tests.

1.6 Inclusion/exclusion criteria

**Inclusion criteria:**

Children with mild retardation who belong to the age group of 7-20 are included in this study.

**Exclusion Criteria:**

This study excludes children who have associated handicaps such as cerebral palsy, hearing impairment, visual impairment and autism.

1.7 Operational definition of key terms

**Literacy Rich Approach (LRA):** It is an approach for teaching reading and writing using small group practices, ongoing monitoring, positive feedback, continuous reinforcement, classroom library, writing centre and daily story reading.
**Language development:** Language is the application of meaning to words and other symbols based on one’s experience. It is the act of expressing oneself through a motor act or through clear sequential verbal thought patterns (Mann, et al., 1992). Major components of language arts are listening, speaking, reading, and writing (Rubin 1997).

In this study language development means acquisition, maintenance and generalization of reading and writing skills in Malayalam language.

**Mental retardation:** Mental retardation is a disability characterized by significant limitations both in intellectual functioning and in adaptive behaviour as expressed in conceptual, social and practical adaptive skills. The disability originate before the age of 18.

Five assumptions essential to the application of the definition are:-

1. Limitation in the present functioning must be considered within the context of community environments typical of the individuals’ age, peers and culture.
2. Valid assessment considers cultural and linguistic diversity as well as differences in communication, sensory, motor, and behavioural factors.
3. Within an individual, limitations often coexist with strengths.
4. An important purpose of describing limitation is to develop a profile of needed support.

5. With appropriate personalized supports over a sustained period the life functioning of the person with mental retardation generally will improve (AAMR, 2002).

**Children with mental retardation:** In this study children with mental retardation means children who belong to the ‘mild’ category, that is, with an IQ between 50-70 (up to 75) and attending special schools.

**Reading:** Reading is a dynamic complex act that involves the bringing of meaning to and getting of meaning from the written page (Rubin, 1997).

**Reading comprehension:** Reading comprehension is constructing meaning by integrating the information provided by the author with the reader’s background knowledge. It requires that the reader interact with text to construct meaning (Bos & Vaughn, 1994).

**Writing skills:** In this study writing skill means student learn to print Malayalam alphabets, letters with symbols, words, sentences, and able to use them meaningfully. In higher level students need to use various aspects of language in their written expression.

**Vocabulary development:** Vocabulary is the total number of words in a language a person knows. In this study vocabulary development means
the number of words students learn to identify and read from given list of words.

**Phonological awareness** : It is the ability to detect the separate phonemes in a word (Gunning, 1998).

**Phoneme** : Smallest unit of sound distinguishes one word from another word.

**Reading fluency** : Ability to read easily, smoothly and correctly with no hesitation or inaccuracy.

**1.8 Methodology in brief.**

This study is conducted to find out the effect of Literacy Rich Approach (LRA) in the language development of children with mental retardation. Experimental design (pre-test -post-test – control-design) is used for this study. The study population is composed of children with mild mental retardation. The sample of the study consists of 60 children with mild mental retardation who belong to the age group 7-20 (30 experimental and 30 control) who are studying in the special school-Nirmala sadan Muvattupuzha, Ernakulam District, Kerala. Their IQ were assessed by using the intelligence test, MISIC (Malin’s Intelligence Scale for Indian Children). Random sampling method was used to select the sample. The tools used are:
(1) Functional Reading Assessment Test (FRAT) for standard I
(2) Functional Writing Assessment Test (FWAT) for standard I,
(3) Functional Reading Assessment Test (FRAT) for standard III,
(4) Functional Writing Assessment Test (FWAT) for standard III,
(5) Parallel Functional Reading Assessment Test (PFRAT) for standard I
(6) Parallel Functional Writing Assessment Test (PFWAT) for standard I,
(7) Parallel Functional Reading Assessment Test (PFRAT) for standard III, and
(8) Parallel Functional Writing Assessment Test (PFWAT) for standard III.

All these tools are developed by the investigator.

The investigator developed a reading writing package for standard I and III which includes all the components of Literacy Rich Approach (LRA), that is, (1) small group practice, (2) classroom library, (3) daily story reading, (4) writing centre, (5) on–going monitoring, (6) positive feedback, and (7) continuous reinforcement.

Data was collected in four stages- entry assessment (pretest), parallel test, post test and retention test. The collected data are analyzed using appropriate statistical techniques and the results obtained are interpreted accordingly.
1.9 **Scope of the study**

It is hoped that finding of this study will help in improving the existing special education, especially literacy instruction practices. Once the educators who teach special children get enough empirical data on the effectiveness of instructional procedures and suitable methodology, they will attempt to utilize the literacy curriculum relevant to the needs and lives of children with mental retardation. The children will be the direct beneficiaries of the study. Since the aim of education for children with mental retardation is to make them independent, any possible change in this regard will help them to become more fruitful members of the community.

It is also expected that finding of this study will enable parents of children with mental retardation to involve actively in the literacy training of their children. In a study (Sukumaran, 2000) on parental involvement in reading and writing skills of their mentally retarded children, it was found that only 24.70% had highly involved. Average involvement was found in 27.60% and 47.70% had only low level involvement.
1.10 Summary

This chapter deals with the background of the study, need and significance of the study, objectives, hypotheses, operational definitions, methodology in brief, and scope of the study.