CHAPTER I

INTRODUCTION
The history of the mentally Retarded is as old as history itself. Children and adults with low intelligence have been recognised as definable sections in all societies. In religious writings they were referred to as weak persons possessed by the devils. In ancient Greece and Rome the Mentally Retarded were persecuted, as those societies believed in the survival of the fittest. At other places and in different times, the mentally retarded were treated as objects of amusements in the courts of Kings, and also as objects of ridicule outside the courts. These approaches contrast with the programmes which are now structured and implemented for the mentally retarded, and which reflect a very different attitude of society towards them. The concept of normalisation, and the intention to draw them into the mainstream of activities by considering them as individuals who form part of the human resources of a community, are the results of a number of legal enactments, which served as instruments for social acceptance. The statement by Crawford reflected these changes. He stated that as professionals we must, as objectively as possible, help the retarded individual move through life or learning stages, removing if we can road blocks to their personal and environmental freedom (1987).
Definitions of the Mentally Retarded

The acceptance of the mentally retarded as a phenomenon that needs concerted, conscious action has happened although it took time. But the translation of this acceptance into meaningful programmes to realise the desired outcome has not been easy. One important difficulty has been the definition of the mentally retarded. Often, the distinction between the mentally ill and the mentally retarded was not understood and this confusion was accentuated by the vagueness in measurement concepts, and the lack of valid and reliable measurement instruments. One definition that was accepted for a very long period and which arose out of the meaning of idiot in the Greek language was—"a person who cannot take part in public life and cannot carry on a conversation" (Hallas, 1983, P1) This definition indicated the lack of communication and motor skills and inadequate personal and social adjustments. The inadequacies remained in all the later definitions of the mentally retarded. The problems of identification, definition, classification and etiology have continued and even in 1972 Kirk was forced to say, that no one definition of retarded children has been accepted by all. The reasons for the ambiguity were well documented. Western countries
defined mental retardation in different ways, and even in a single country there existed differing definitions. Later, developing countries like India, accepted the concept with the inherent ambiguities. Medical experts, psychologists, psychiatrists, educationalists and social workers evolved differing definitions on mental retardation and also revised or edited the same periodically. But in spite of the changes and differences, the definitions did have two common elements. (1) Inadequacy of intellectual capability and (2) Lack of capability for functioning like a normal individual. The English Mental Handicap Act defined severe subnormality "as a state of arrested or incomplete development of mind which includes subnormal intelligence, and is of such nature and degree that the patient is incapable of living an independent life, or of guarding himself against serious exploitation, or will be so incapable when of an age to do so" (Halls et al, 1983 p.9). According to Benda (1954 p.1115) a mentally defective person is "a person who is incapable of managing himself and his affairs, or being taught to do so, who requires supervision, control, and care for his own welfare and the welfare of the community". The definition of Doll (1941 p.215) was more specific. He defined thus: "we observe that six criteria by statement or implication have been generally considered essential to an adequate definition and concept. These are: (1) social
incompetence, (2) due to mental subnormality, (3) which has been developmentally arrested. (4) which obtains at maturity, (5) is of constitutional origin and (6) is essentially incurable".

A change in the definition of mental retardation came in 1959, when Heber with the support of National Institute of Mental Health, and American Association of Mental Deficiency (AAMD) published a manual on terminology and classification. In 1961 the manual was revised. According to the revised manual, Mental Retardation refers to "subaverage general intellectual functioning which originates during the developmental period and is associated with impairment in adaptive behaviour" (Heber 1961 p.499). Each important term was defined for working purposes: eg: "sub average" referred to performance which is greater than one standard deviation below the population mean of the age group involved on measures of general intellectual functioning (Robinson and Robinson, 1965). Their definition emphasised that sub-normality could be measured by behavioural performance as judged by the expected behaviour of the general population. The definition emphasised the current status of the individual's intellectual functioning and adaptive behaviour. In 1973 American Association on Mental Deficiency, further revised the definition thus: "Mental retardation refers to significantly sub-average
general intellectual functioning existing concurrently with deficits in adaptive behaviour, and manifested during the developmental period" (Manual on Terminology and classification in Mental Retardation, Grossman 1973 p.11). In this definition, mental retardation was descriptive of current behaviour without reference to etiology. Prognosis is related more to such factors as associated conditions, motivation, treatment and training opportunities than to mental retardation itself (Manual on terminology and classification in mental retardation-A.A.M.D., 1973). This definition also indicated that low I.Q. by itself cannot make a criterion for mental retardation. In 1983 American Association on Mental Retardation made further modification on the above definition but the basic principle was the same. The modified definition is: "Mental Retardation refers to significantly sub-average general intellectual functioning, resulting in or associated with concurrent impairments in adaptive behaviour, and manifested during the developmental period" ("Mental Retardation- A Manual of Guidance Counsellors" N.I.M.H. - 1988 p.3). This definition has been the basis for a change in direction, and an expected outcome of programmes for the Mentally Retarded.

The more recent definitions which emphasised the innate incapability of the mentally retarded to be responsible for themselves, by implication also underlined
the need for special care and attention for them. Simultaneously it was also recognised that the mentally retarded, although clearly different from the normal group, exhibited a range of differences within themselves, which made a population of them touch normal limits in a limited way in certain areas. Further, mental retardation, is culture related and is therefore a concept which is often defined in the relative context. In less complex, less intellectually centered societies they would have no trouble in attaining and retaining equality realised ambitions. Some might even be capable of gaining superiority by virtue of assets other than those measured by the intelligence test (Kanner, 1957 p.70-71).

Classifications of Mentally Retarded

As in the case of defining mental retardation, from time immemorial, mentally retarded were classified differently by experts in medical, psychological and educational disciplines. There was no universally accepted terminology while referring to a mentally retarded person. Lack of appropriate classification created problems to the concerned disciplines. Hence each discipline evolved classification based on causes, degree of severity of retardation, and on the basis of educability and
trainability of each child.

The objectives of the classifications were:-

1. Acceptance of universally accepted and applicable classification system.
2. Identification, diagnosis, treatment, intervention and prevention.
3. Research purposes in this field.
4. Legal and Administrative purposes.
5. Programme planning and Data Book.

a. Medical Classification

The Medical Classifications are available from World Health Organisation, from International classification of Diseases (I.C.D-8, 1968 the revised I.C.D-9 and 10), American Psychiatric Association (DSM II, 1968), the revised DSM III, and from the American Association on Mental Deficiency manual on terminology and classification in mental retardation (1973).

The classifications according to A.A.M.D. 1973 are based on:

1. Infections and intoxications
2. Trauma or physical agent
3. Metabolism or Nutrition
4. Gross motor disease (post natal)
5. Unknown pre-natal influence
6. Chromosomal abnormality
7. Gestational disorders
8. Psychiatric disorders
9. Environmental influences
10. Other factors

Additional medical information categories are:
1. Genetic component
2. Impairment of special senses
3. Disorders of perception and expression
4. Convulsive disorder
5. Motor dysfunction

b. Psychological classification

Mental subnormality was defined by psychologists according to test scores. The most widely used standardised test of intelligence for children were "Stanford-Binet" or the "Wechsler Intelligence Scale" for Children (WISC). Mental ability was measured in terms of intelligent quotient scores. In 1937 Stanford Binet test was revised and children below 70 I.Q ware considered as "mentally defective". An I.Q of 70 as a cut off score in defining mental retardation became popular among psychologists.

Distribution of the 1937 Stanford-Binet standardization group was as follows:
<table>
<thead>
<tr>
<th>IQ Range</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>90-109</td>
<td>Normal average</td>
</tr>
<tr>
<td>30-89</td>
<td>Low average</td>
</tr>
<tr>
<td>70-79</td>
<td>Borderline defective</td>
</tr>
<tr>
<td>30-60</td>
<td>Mentally defective</td>
</tr>
</tbody>
</table>

**Weschsler's Intelligence classification:**

<table>
<thead>
<tr>
<th>IQ Range</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>90-109</td>
<td>Average</td>
</tr>
<tr>
<td>80-89</td>
<td>Dull normal</td>
</tr>
<tr>
<td>70-79</td>
<td>Borderline</td>
</tr>
<tr>
<td>69 and below</td>
<td>Mentally defective</td>
</tr>
</tbody>
</table>

* I.C.D (9) Classification

<table>
<thead>
<tr>
<th>IQ Range</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>30-59</td>
<td>Mild Mental Retardation</td>
</tr>
<tr>
<td>35-49</td>
<td>Moderate Mental Retardation</td>
</tr>
<tr>
<td>20-34</td>
<td>Severe mental Retardation</td>
</tr>
<tr>
<td>Below 20</td>
<td>Profound Mental Retardation</td>
</tr>
</tbody>
</table>

* I.C.D-International Classification of Diseases (WHO)

The psychological classification according to American Association on Mental Deficiency (A.A.M.D) are:

- Mildly Retarded: IQ 55-70
- Moderately Retarded: IQ 40-54
- Severely Retarded: IQ 25-39
- Profoundly Retarded: IQ Below 25
### Table 1.1 Developmental characteristics of the mentally retarded

<table>
<thead>
<tr>
<th>Degree of mental retardation</th>
<th>Pre-School age 0-5 Maturation and Development</th>
<th>School age 6-20 Training and education</th>
<th>Adult 21 and over social and vocational adequacy</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mild</strong></td>
<td>Can develop social and communication skill; minimal retardation in sensori motor area; often not distinguished from normal until later age</td>
<td>Can learn academic skills up to approximately sixth grade level by late teens. Can be guided toward social conformity &quot;Educable&quot;.</td>
<td>Can usually achieve social and vocational skills adequate to minimum self-support but may need guidance when under unusual social or economic stress</td>
</tr>
<tr>
<td><strong>Moderate</strong></td>
<td>Can talk or learn to communicate; poor social awareness; fair motor development profits from training in self-help; can be managed with moderate supervision</td>
<td>Can profit from training in social and occupational skills; unlikely to progress beyond second grade level in academic subjects may learn to travel alone in familiar places</td>
<td>May achieve self-maintenance in unskilled or semi-skilled work under sheltered conditions needs supervision and guidance when under mild social or economic stress</td>
</tr>
<tr>
<td><strong>Severe</strong></td>
<td>Poor motor development speech is minimal; generally unable to profit from training in self-help; little or no communication skills</td>
<td>can talk or learn to communicate; can be trained in elementary health habits; profits from systematic habit training</td>
<td>May contribute partially to self-maintenance under complete supervision; can develop self-protection skills to a minimal useful level in a controlled environment</td>
</tr>
<tr>
<td><strong>Profound</strong></td>
<td>Gross retardation; minimal capacity for functioning in sensori motor areas; needs nursing care</td>
<td>Some motor development present; may respond to minimum or limited training in self-help</td>
<td>Some motor and speech development; may achieve very limited self-care; needs nursing care</td>
</tr>
</tbody>
</table>

Table 1.2 AAMD Classification of Mental Retardation with Special Categories

<table>
<thead>
<tr>
<th>AAMD level</th>
<th>IQ Range*</th>
<th>Special Education category**</th>
<th>Expected adaptive behaviour**</th>
<th>Adult outcome**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profound</td>
<td>Below 25</td>
<td>Profound. Capable of some pre-school activities</td>
<td>May eventually be able to feed self and to interact with others in simple play activities, but speech and toileting remain at a primitive level</td>
<td>Will require continued custodial care</td>
</tr>
<tr>
<td>Severe</td>
<td>25-39</td>
<td>Trainable. Capable of some skills at kindergarten level, such as recognizing words and basic number concepts</td>
<td>May eventually be able to feed, toilet, and dress self adequately, carry on rudimentary conversation, and run errands or do simple household chores</td>
<td>Will need to live in closely supervised environment</td>
</tr>
<tr>
<td>Moderate</td>
<td>40-54</td>
<td>Trainable or Educable. Capable of first or second grade learning, such as reading simple sentences and basic addition and substraction</td>
<td>May eventually be able to feed, dress, and groom self adequately, carry on simple conversations; interact cooperatively with others; and be responsible for simple routines of daily living</td>
<td>Able to live independently, but will need periodic supervision; can work in sheltered situations</td>
</tr>
</tbody>
</table>

(Contd...)
(Table 1.2 contd...)  

<table>
<thead>
<tr>
<th>AAMD level</th>
<th>IQ Range*</th>
<th>Special Education category**</th>
<th>Expected adaptive behaviour**</th>
<th>Adult outcome**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mild</td>
<td>55-70</td>
<td>Educable. Capable of second to seventh-grade learning, such as reading stories, communicating in writing, and handing simple financial transactions</td>
<td>May eventually be responsible for all feeding and personal grooming activities; communicate effectively in everyday conversation; enjoy friendships and group social activities and travel with care in home-town</td>
<td>Able to live independently, may marry or have children, and hold unskilled or semi-skilled jobs, but will need occasional assistance in all these areas</td>
</tr>
</tbody>
</table>

* Note that these levels are determined using the Wechsler Intelligence Scales. IQ values for other individual intelligence scales may be slightly different.

** Again, the reader is reminded—this should not be considered a “table of limitations”. Considerable variability is found at each level and many children at the moderate or even severe levels of intelligence are capable of much higher levels of academic achievement and eventual social adaptation than suggested here.
Definitions

Mild Mental Retardation

"Mildly retarded people acquire language with some delay but most achieve the ability to use speech for everyday life and to hold conversations and to engage in the clinical interview. Most of them also achieve full independence in self care (eating, washing, dressing, bowel and bladder control) and in practical and domestic skills, even if the rate of development is considerably slower than normal. The main difficulties are usually seen in academic school work, and many have particular problems in reading and writing. However, mildly retarded people can be greatly helped by education designed to develop their skills and compensate for their handicaps. Most of those in the higher ranges of mild mental retardation are potentially capable of work demanding practical rather than academic abilities, including unskilled or semi-skilled manual labour. In a socio-cultural context requiring little academic achievement, some degree of mild retardation may not itself represent a problem. However, if there is also noticeable emotional and social immaturity, the consequences of the handicap, e.g., inability to cope with the demands of marriage or child rearing, or difficulty fitting in with cultural traditions and expectations, will be apparent.
In general, the behavioural, emotional and social difficulties of the mildly mentally retarded, and the needs for treatment and support arising from them, are more closely akin to those found in persons of normal intelligence, than to the specific problems of the moderately and severely retarded" (I.C.D.10, 1990).

It is difficult to identify the mildly retarded children in pre-school age. In primary school the mildly retarded are generally identified as dropouts or under achievers. In personal care and grooming, mildly retarded are good in looking after themselves. He is capable of communicating effectively in his day to day life and can be trained in functional academics to enhance his vocational placement. Some of the studies done by the President's Committee on Mental Retardation U.S.A (1970) termed some such children as "six hour retarded" children as they spent six hours in a school before they were identified as retarded. Mildly retarded children, comprises the largest percentage according to Hewett (1984).

Moderate Mental Retardation

"Subjects in this category are slow in developing comprehension and use of language, and their eventual achievement in this area is limited. Achievement of self care and motor skills is also retarded, and some need
supervision throughout life. Progress in school work is limited, but a proportion learns the basic skills needed for reading, writing and counting. Educational programmes can provide opportunities for individuals to develop their limited potential and to acquire some basic skills, and are appropriate for slow learners with a low ceiling of achievement. As adults, moderately retarded people are usually able to do simple practical work, if the tasks are carefully structured, and skilled supervision is provided. Completely independent living in adult life is rarely achieved. They are, however, as a rule fully mobile and physically active and the majority show evidence of social development in their ability to establish contact, to communicate with others and to engage in simple social activities" (I.C.D.-10, 1990).

The moderately retarded could be identified before pre-school due to delayed mile-stones and associated problems. Training in self-care, communication and socialisation are given emphasis. Could do repetitive, simple jobs if trained at an earlier stage. They need sheltered workshop and supervision throughout. Few may be able to earn their livelihood.

Severe Mental Retardation

The severely retarded can be identified in the
early stages of life. They need training in feeding, dressing, and to carry out simple instruction. Kirk and Gallagher (1979) estimate that 2 to 5 per cent of school going children are severely retarded. Some of them can do simple household chores. Severely Retarded are known as "The 24 Hour Retarded Child" as they require care and supervision throughout the life according to a report in National Association for retarded citizen, U.S.A (1976).

Profoundly Retarded are identified at birth. Many may be having multiple handicap and will have to depend on others for their care and survival. They need medical attention besides special education.

The emphasis is on the concepts of the Mental Age (MA) which will be useful for identifying the mentally retarded. It remains the responsibility of the tester to use good judgement in applying labels when he must, to refuse to apply them when he cannot do so in good conscience, and to note clearly the bases upon which the classification was made according to Robinson & Robinson (1965).

The professionals working with the mentally retarded undertook the responsibility of classifying the mentally retarded. The unpredictable differences in terms of causes, intellectual differences, behavioural problems, social maladaptation problems, and future management plans
were given, sufficient weightage when the classification was carried out. For appropriate education and training, the classification provided sufficient details about the educational characteristics of the retarded children. For identification and assessment, various developmental screening tests are useful to assess the problems in the following areas:

1. Motor development
2. Perceptual and Neurointegrative functioning
3. Cognitive skills
4. Language communication skills
5. Social emotional factors

Much information could be collected through case history taking with parents, questionnaires and other inventories. Informal observation of child's behaviour, screening and criterion tests, could provide sufficient information about the Child's abilities.

c. Educational Classification

According to the educational classification, the mentally retarded are classified as Educables, Trainables and Custodials. "Educable Mentally Retarded (EMR) children (I.Q 50 to 70 or 75) are, for the most part, normal in appearance but said to function at an intellectual level generally limited to learning only the most basic school
skills in reading, spelling, writing, and numerical calculation. EMR children are usually not ready for such academic skills as reading and maths in the first grade but can be expected eventually to attain anywhere from a second to seventh grade level in academic achievement. Most begin school in the regular classroom, but low achievement or adaptive behaviour makes it necessary for many to receive special assistance or attend special classes" (Hewett and Forness, 1984, p.122).

The Educable mentally retarded corresponds approximately to the mildly mentally retarded child. The Educable with an I.Q of 50 to 70 or 75 have problems in learning and regular school programmes. The curriculum for the educable include functional academics, social skills and vocational skills. They may attend primary classes or even up to the 6th standard. They can get along in the community as wage earners in semi skilled or unskilled jobs. The educable mentally retarded contribute to a large number in the population of the retarded. In western countries they are integrated in regular schools.

Trainable mentally retarded (TMR) are defined by Hewett and Forness (1984) thus: "Children (I.Q 30 to 50) function at a level where formal academic learning is quite limited. Most can be expected to have physical or sensory impairments and many tend to look different in terms of
facial features or physical characteristics. Unlike EMR children, the developmental problems of TMR children emerge quite early in infancy or pre-school years, usually placed in special classes or special schools. TMR children need training in self-care activities and language development. In many cases, they acquire only rudimentary academic skills" (P.122).

The trainables are identified very early in life as they have other handicaps besides mental retardation. Their IQ is 30 to 50 and they correspond to the moderately retarded children. The custodials or severely mentally retarded children need medical and custodial care throughout their life. Their training was given importance recently. Their IQ range is below 30 and they correspond to severely and profoundly retarded children.

The study is concerned with the definition of the mentally retarded in terms of education as EMR and TMR. The other grouping studied are Early Intervention and Late Intervention.

Approaches to the Education of the Mentally Retarded

Changes in the definitions reflected or created differences in approaches to the mentally retarded. The need to bring the mentally retarded into the main-stream of activities of the normal population by enabling them to
attain the maximum of their potential, was accepted not only out of consideration for the Mentally Retarded as individual human beings, but also because of the need to educate them and thus make them part of the human resource capital of a society. It has been accepted more recently that mentally retarded individuals are valuable human beings, worthy of time and effort, even when realistic expectations for them, are far limited. Total dependence of the mentally retarded on the rest of society was found to be incompatible with the new economy of development which was emerging. As professionals every one must as objectively as possible, help the retarded individuals move through life or learning stage, removing as we can, road block to their personal and environmental freedom (crawford 1987). When we accept that every mentally retarded person has the right to live with his unique set of potentialities, we also accept the need for a well conceived system of special education for the mentally retarded.

Western researchers have stated that two to three per cent of any population would have an I.Q below 70. Although no systematic survey has been conducted to determine the prevalence of mental retardation in India, it has been estimated recently that there are about 20 million persons who are retarded, of which about 4 million persons would be moderately and severely retarded (NIMH, 1990). In
the state of Kerala the number of retarded is expected to be around five lakhs. Implementing an effective programme of education for this group in Kerala would demand resources and skills of a high order. When we go beyond the need for resources, and view the problem of the mentally retarded form the concept of individual rights and needs, the necessity for educating and training the mentally retarded gets emphasised.

Special Education for the mentally retarded

Special Education has clearly identified stages and programmes linked to the degrees of acceptance and various definitions of the mentally retarded. The cruelty, neglect and contempt shown by the community which was characteristic of the period from 1550 BC to 470 A.D, and the philanthropic motive which initiated the care programmes from 500 A.D to 1500 A.D, gradually changed to a definite attempt to provide education to the Handicapped including the Retarded. In fact, Special Education procedures had their beginning at this stage according to Frampton et al (1955).

Professional involvement in educational theories and methods for mentally retarded were started only from 1920 onwards. The special needs of the school age children were clearly spelt out and special attention was given to
curriculum for special classes. Prior to 1920 there were very few special teachers. A college programme for special teachers was established in Eastern Michigan University in U.S.A. By 1949, seventy seven centres for teachers' training came into being in the U.S.A. alone, reports Mackie et al. (1954). Before 1920 there were many institutions functioning as residential homes. Most of them were very large and accommodated retarded children of all degrees of retardation, irrespective of their age and level of retardation. They were dumped into these institutions to save the society and the families of the mentally retarded, rather than to train or educate the mentally handicapped. Most of the residential set ups provided only food, clothing and toilet needs, and were state owned Institutions. An alternative programme was conceived to overcome the defects of isolating the mentally retarded. Integrated education, which envisaged the Mentally Retarded as students of regular schools to be educated to the level of their capabilities was proposed. From 1920 to 1930 the number of special classes in regular schools increased. But many retarded children remained in regular schools, year after year although without learning much (Cruickshank, 1958). After the second World War, special classes were promoted very enthusiastically. Parents of the mentally retarded, formed associations which became very strong and demanded special
facilities for their handicapped children in many countries. In 1952 mandatory special education legislation was passed in U.S.A. A special Education Department was instituted along with State Education Departments. Many studies related to independent causes of mental retardation, prevention, early intervention, facilities for institutionalised children, and Teacher's Training Programme. Special Education facilities, were carried out from 1950 onwards. These studies were informative and the findings helped to improve the education of the mentally retarded. But the publication of 'Christmas in Purgatory' by Blatt and Kaplan in 1966 revealed, that the efforts taken so far had not improved the condition of the mentally retarded. It was felt that institutionalising children in large numbers without classification and grouping, was a great mistake. The community special school became popular and was seen to be more beneficial than residential homes. Other studies showed that enrolling mentally handicapped in regular classes tended to isolate the mentally retarded and that they were strongly rejected by the normal children in their classes (Johnson & Kirk 1950; Thurstone, 1959). It was clear that integrating the mentally retarded with the normal children in public schools was not a remedy for the innumerable maladaptive problems of the mentally retarded and their segregation by the normal children. Although integrated
education became very popular, mentally retarded were directed to stay in special classes most of the time and were asked to attend their academic subjects in regular classes in the grade level in which they can function. The inadequacies of the different decisions taken were evident. The need for a different approach to the education of the mentally retarded, based on new criteria was urgently felt.

**New Approaches to the Mentally Retarded**

In all countries the introduction of new approaches and implementation were more or less simultaneous. In Scandinavian countries normalising the mentally retarded and making them enter the mainstream of life came into being in the nineteen seventies. Bank Mik-Kelson of Denmark advocated existence of the mentally retarded as close to the normal as possible. The application of the normalization principle will not make the subnormal "normal" but will make life conditions of the mentally handicapped compare as far as possible, to that of the normal people. Nirje (1969a) and Wolfensberger in 1972 advocated the normalization principle. Mainstreaming the mentally handicapped was also a modern approach in Special Education, the idea being that children with special needs, be educated so that they could join with the mainstream of the community.
Programmes for the Mentally Retarded

To attain the objectives of normalisation and mainstreaming, several new curricular programmes supported by different teaching strategies were found out. The research studies which were intended to identify successful programmes and practice (Chapter II supra) brought out the need to (1) view the mentally retarded as a heterogenous group ranging from mildly retarded to profoundly retarded, (2) set the objectives and outcomes of teacher programmes in terms of the individual child and (3) individualising instruction. The acceptance of the need for individualising content and technique of teaching was a landmark in the history of special education.

Individualized Educational Programme for mentally retarded

In November 1975 the American Congress enacted P.L 94-142, to ensure, that all handicapped children have free access to public education services. By this law the rights of the handicapped children and their parents or guardians were protected and they were helped to assist their children in their educational programmes. Education for all levels of mentally handicapped was taken care of. The important characteristics of this measure was the focus on the individual child and his/her development. Realisation of the individualized approach to the education of the
mentally retarded was the development of the Individualized Educational Programme. The Individualized Educational Programme as conceived in United States was intended to protect all the legal rights of the handicapped, covering all aspects of education right from 3 to 21 years.

The Individualized Educational Programme includes all the important components of the curriculum of any course of study, i.e. objectives, content, instructional strategies and evaluation, with the important difference that they are not differentiated as distinct strategies or processes, but are incorporated as simultaneous integrated activities. Appropriate curriculum was developed based on the principles of Individualized Educational Programme in determination of levels, fixing goals and short-term objectives, specifying duration and appropriate assessment and evaluation. According to Sheerer (1985), curriculum for the mentally handicapped must offer a developmentally sequenced curriculum designed to be used as an evaluation and programming instrument. Each child's particular strengths and weaknesses are identified so that a personalised programme can be developed, based on the child's present knowledge and abilities. The curriculum serves as a criterion referenced instrument to measure short and long term progress. Implementation of the curriculum is based on a prescriptive teaching approach, where specific objectives
are developed, taught, evaluated and then adjusted for future teaching, based on feedback from evaluation results. This approach entailed constant monitoring of programme implementation and provided specific detailed work plan to guide families in the teaching of their children. Brown (1986) advocated that the curriculum should give importance to writing, speaking as well as communication by other means, and the practice of that communication in social settings. The programme also ensures the adoption of teaching strategies which have been developed and derived from "Applied behaviour analysis", a term which is known differently as "Behaviour therapy", "Behaviour modification" "instructional conditioning" and "operant conditioning" etc. All these terms describe a set of principles governing behaviour change which could be applied in the development and change in behaviour. Short term objectives for learning were programmed with appropriate activities for intervention, and the reward for each child was studied and awarded without delay. Behavioural approaches was found very effective in teaching and training the mentally retarded children and therefore formed the basis for the Individualised Educational Programme.

Different Individualized Educational Programme have been prepared and implemented in special schools in different communities. Earlier studies have documented the
results obtained when instruction was individualized (Black-Cleworth, 1978; Mac Andrew and Edgarston, 1966; Bandesman Dwyer, Berkson and Romer, 1979). The total sample of the studies was often very small (Wacho, Dyson, 1989). During the last one decade the number of studies in this area increased, reflecting the acceptance of Individualized Programmes as more successful than the traditional programmes. Worrall and Singh (1983) tested the potentiality of individualising of instruction for a rebus programme intended for particular studies. The study by Essel (1989) showed that individualization was responsible for the effectiveness of the teaching technique employed in the study. Lacond's study explained the potentialities of micro computing in individualisation of instruction and found that they helped to improve attainment in communication skills. Worrall and Singh (1983) also used individual guidance for testing the effectiveness of programmes. Hoogeveen's (1989) study was focussed on testing the approaches of the technique of individual itself and he found it to be very effective. Snell (1988) showed the importance of individualising the curriculum and Singh (1988) tested the effectiveness of individualized instruction. Individual instruction programme developed for Down Syndrome children was tested by Weistefeld (1987), and it was shown to be effective in language learning for mentally retarded

Holistic Evaluation studies of Individual Educational Programmes are very few, as these programmes are not many. Development of Individual Education Programme, where individualisation is the basis for the teaching of all the components i.e., objective, content, teaching learning and evaluation, is a long process that requires the application of the expertise and experience of a large number of individuals. The context for their implementation and assessment require the specific conditions of flexible administration, trained personnel, and identified infrastructure facilities. The present study is an attempt to test the effectiveness of the Individualized training Programme for mentally retarded children of Kerala. If tested and found adequate the programme would become an important input for raising the effectiveness of education of the mentally retarded. The significance of the study is tied up therefore with its outcome.

Communication Skills of the Mentally Retarded

The need and significance of language for human development have been accepted in all communities. Piaget (1952) believed that language was a construct of intelligence. Chomskyh's (1973) statement that language
development was the result of maturation makes genetic capability the basis for acquisition of language. The sociological aspects of language development have been emphasised in all definitions. Piaget (1952) has stated that language is a symbolisation of thought without which, thought could never become really socialised and thereby logical. Stagner and Solley (1970) also defined language as a symbol system which permits man to learn about his environment. It is the most potent instrument for his emotional development as well. As Lado (1964, p.11) has expressed, "language is intimately tied to man's feelings and activity . . . It is used for work, worship, and play by everyone, be he beggar or banker, savage or civilised."

Level of Language Acquisition of Mentally Retarded

As effective communication involves accurate perception and understanding of the speech and language of others and a motivation to communicate with them, the mentally retarded has to be expected to be inadequate in language development. Research findings have confirmed that the language level of the Mentally Retarded is below his general age level (Phelps, 1956; Krippner, 1964; Smith, 1974; Beck, Engleman and Thomas, 1975) although they can be expected to communicate at least according to their mental age. The level of acquisition has been linked to the

Language problems of Mentally Retarded

The language problems of the mentally retarded have been identified and studied in detail (Chesaldine and McConkey, 1979; Kasari, 1990; Crosby & Blatt, 1968; Denny, 1966; Brown, 1974). Communication deficiencies have been located in the studies done by Berry (1976), Jones and Robson (1979) and Shefelbusch and Lloyd (1974). The effect of communication skills on communication defects have also been measured (Hewett, 1984; Evans, 1965; Corte, 1976; Cohen, 1971).

Enhancement of language skills

Mentally handicapped have also been shown to use the same syntactic information in the comprehension of complement clauses as the non-retarded children (Natso Poulos, 1990) but the retarded lacked meta linguistic ability. The interpretation of the findings of these studies is significant because it is possible to enhance communication skills by using appropriate instructional process. This possibility has also been proved (Dorry and Zseman, 1975; Gottardo, 1991; Fucm, 1992). Appropriate language intervention has been shown to enhance
communication skill even in the severely mentally retarded (Harris, 1975; Blyden, 1989; Bowler, 1990). The findings which have been stated in the study done by Cawley (1990) that no difference exists between mildly handicapped and the sample of the learning disabled again points to the need to identify effective learning programme for the mentally retarded, as enhancement of communication skills is possible. The present study is an attempt to do so.

Language skills of mentally retarded

The review of studies presented in Chapter II of this study, and which covers the different language skills separately, has presented findings which have shown repeatedly that effective teaching strategies can enhance the different language skills.

a. Oral Skills

A multitude of techniques to assess aspects of spoken language are available to-day. There are standardised as well as informal teacher-made tests. Tests on language developments (New-commer and Hammil, 1977) teaching strategy for the development of verbal mediation (Rusch, F.R. 1987) and spontaneous language activities (O'Donnell, 1966; Kolstoe, 1961; Wildman, 1986) have shown that oral language development can be achieved to attain greater competence.
b. Reading skills

The significance of reading in the language development of the mentally retarded and in developing their capability to interact with their environment has been stated in the literature on mental retardation. Research studies have also attempted to test the effects of different programmes. The etiological factors in poor reading have been isolated (Krippner, 1968) and the importance of teaching strategies in helping the individual mentally retarded child to read has been established (O'Donnell, 1966; Miller and Miller, 1968; Huey, 1968; Woodcock Clark and Davies, 1969; Gumperz and Hernande Chayezez, 1972; Dorry Zeman, 1975; Begy and Cohill, 1978; Allington, 1980; Worral and Singh, 1983; Barudin, 1990; Gottardo, 1991). The process of learning to read has already been studied by many (Garrod and Stanford, 1977; Hulme, 1979; Barudin, 1990; Bowler et al., 1990). The importance of identification and adoption of appropriate strategies have been realised as well.

c. Writing skills

Very few research studies have been done in the area of writing skills of mentally retarded. The main findings have been that the writing skills of mentally retarded are very low. Crew (1988), Newcomer (1988) and Graham and Harris (1988), Oliver (1990) and BOS (1988)
attempted to identify successful teaching strategies for teaching and writing and have shown the need to know the learner very well and have pointed out the need for individual attention.

Intervention Strategies in Language Acquisition

Research studies which have indicated at least partial success in language attainment have brought out the significance of teaching strategies and learning materials and the importance of individualisation of instruction (Dyson, 1989; Forbes, 1988; Worrall and Singh, 1983; Lacond, 1989; Hoogeveen, 1989; Weistefeld, 1987; Jacobson, 1987). Snell (1988) was able to recommend curriculum and methodology for individualised teaching based on their capabilities for enhancement of communication in the mentally retarded. Desai (1988) recommended the need of individualised instruction in schools.

The findings of the studies done on attentional control process by Brown (1966), on short term memory by Hagen and Hunstmen (1971), on attentional control by Bruscia (1981), and on linguistic recall by Felton (1989), Zeaman and House (1963), Fisher and Zeaman (1973), Bloom (1978), Kasari et al. (1990) Merril (1990) and Natsopoulds (1990) have shown the inadequacies of the mentally retarded in these important process components of language acquisition,
in addition to showing that specific intervention teaching strategies have been successful. The conclusion can also be applied to the large number of studies on memory processing and auditory discrimination (Cummins, 1973, 1979; Ashman, 1982; Ashman, Mollay and Das, 1981; Botuck, Turkewitz and Moreau, 1987; Warren-Leubecker, 1987).

Several studies done in naturalistic environment which attempted to study the process by which mentally retarded mould their linguistic pattern into verbal utterances, showed up the possibilities of unstructured non-threatening situations for development of language in mentally retarded.

Effect of Individualised Instruction

Bos (1988) and Snell (1988) were able to identify the instructional features which could be successfully implemented, all of which were based on viewing the learner as an individual. Kolstoe (1976), Diner (1981), Deppe and Sherman (1981) and Harris (1988) had also moved in the same direction. The functionality of the individualised Educational Programme (IEP) was assessed in the studies by Polloway et al (1985); Smith (1980); Weistefeld (1986 and 1987); and Jacobson (1987), and the need for trained personnel was stressed. Macmillan (1988) provides classroom teachers ideas about designing the IEP and some suggestions
for eliciting parents' support in implementing it. Charles 
(1980) explored the implementation of IEP, in greater 
details and was able to show the strength and weaknesses of 
the programme. Monotogomery's study has similar objectives 
(1988). The present study is concerned with the study of the 
effect of Individualized Training Programme on development 
of the three communication skills-reading, writing and oral. 
This study which attempts to assess the development in all 
the three language skills in the same sample is a pioneering 
effort, and the result is bound to be significant, in the 
field of education of the mentally retarded.

**Motor Skills of Mentally Retarded**

A large body of early research results right from 
the time of Itard, Seguin and Montessori are available on 
the motor learning literature. The importance of motor 
skills in total development of the Mentally Retarded has 
already been established. Further, the studies relating to 
reaction time and learning paradigms involving motor skills 
(Berkson, 1960; Maisto and Sipe, 1980; Baumeister, Hawkins 
and Holland, 1966; Simensen, 1973) revealed that motor 
skills were related to learning behaviour. The study of 
Loboto, Barrera and Feldman (1981) on sensory motor 
functioning and pre-linguistic communication of severely and 
profoundly retarded individual, measures the relationship
between motor development and language acquisition. The communication skills were found to increase systematically with increase in sensory motor functioning and the analysis of variance results indicated positive relationship. The study which could show interrelationships had adopted individualised teachings. The samples were very small. In the present study the Investigator intends to study motor development as an associated variable of communication skills. It is presumed that the Individualized Training Programme will have effect on motor skills. The effect of motor skills on communication skills can also be assessed.

Socio-emotional skills

The socio-emotional skills of mentally retarded have been studied in relation to a number of situations and categories. Morrison's (1985) study compared non-handicapped and special class children. Glidewell et al. (1966) found that the social structure of the poor group had an effect on self esteem of the child. The importance of socio-emotional skills in normalisation and mainstreaming outcomes was stressed (Essel, 1989). The present study which intends to investigate the effectiveness of Individualized Training Programme in the enhancement socio-emotional skill which is taken as an associated variable of communication skills, explores possibilities which were indicated in the earlier
studies. Academic performance and oral reading performance of the mentally retarded were found to be influenced by the low social esteem and consequent negative approach to mental retardation.

Review of the earlier studies has shown that those studies on the low level of attainment in communication skills and motor and socio-emotional skills were done through surveys mainly. The effects of strategies on growth and development were not explored extensively earlier, and attempts when made were confined to few small samples. The inter linkages between the different skills were also not taken up for study. Studies made on writing and oral skills are very few. The difficulty in having the same sample for longitudinal studies could be one explanation. The lack of facilities for a long period of time, and their inability to have the mentally retarded under their supervision without outside interference could also be contributing factors.

The ITP is a programme that is based on the development concept and on Individualized instruction. It should be possible to expect the programme to succeed in the acquisition of language. The present study is intended to test the effectiveness of ITP on development of communication skills.

One of the most significant findings of the present research studies on communication skills, and motor
and socio-emotional skills is the importance of individual attention and individual programming. The ITP is developed on this principle and hence it is possible to expect the programme to be effective in the development of communication skills and motor and socio-emotional skills in the mentally retarded.

The present investigator is the Director of an Institution for the Mentally Retarded and has acquired specialised programming in mental retardation. She has been teaching the mentally retarded for twenty five years. These facilitating conditions enabled the Researcher the formulation of a study with a large sample of mentally retarded with different levels of retardation, with the objective of assessment of a total instructional performances covering a long period of time. The findings of the study, it is hoped, will be significant, and will provide the input for charting an entirely new teaching and learning programme for the mentally retarded for the State of Kerala.

**Education of the Mentally Retarded in National and State Context**

The Education of the mentally retarded has been accepted slowly in India and in Kerala, as an important activity which requires special facilities and adoption of
specially prepared curricula and teaching strategies. The number of mentally retarded in India has been officially estimated to be around twenty millions, including the half million belonging to Kerala. Considering the nature of the problem, its low social acceptance and the inadequate facilities available, the actual number can be expected to be high.

As the table of figures of the National Institute for mentally Handicapped show, the first school was established in India only in 1935 and the rate of increase was very slow for the first 3 decades and has started only now, to increase at a higher rate.

Table 1.3 Growth of facilities of Special Education from 1931 to 1991*.

<table>
<thead>
<tr>
<th>Decade</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1931-1940</td>
<td>01</td>
</tr>
<tr>
<td>1941-1950</td>
<td>06</td>
</tr>
<tr>
<td>1951-1960</td>
<td>13</td>
</tr>
<tr>
<td>1961-1970</td>
<td>43</td>
</tr>
<tr>
<td>1971-1980</td>
<td>132</td>
</tr>
<tr>
<td>1981-1990</td>
<td>215</td>
</tr>
<tr>
<td>Not furnished</td>
<td>14</td>
</tr>
</tbody>
</table>

In Kerala, the first school was established only in 1963. But by 1990, according to available reports, the number had increased to make Kerala the State with the highest number of special schools in the field. Figures relating to the states in India are given in Table 1.4.

Table 1.4 State-wise distribution of facilities for Special Education.

<table>
<thead>
<tr>
<th>Name of state</th>
<th>Number of facilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andaman &amp; Nicobar island</td>
<td>1</td>
</tr>
<tr>
<td>Andhra Pradesh</td>
<td>32</td>
</tr>
<tr>
<td>Assam</td>
<td>03</td>
</tr>
<tr>
<td>Bihar</td>
<td>06</td>
</tr>
<tr>
<td>Chandigarh</td>
<td>03</td>
</tr>
<tr>
<td>Delhi</td>
<td>22</td>
</tr>
<tr>
<td>Goa</td>
<td>02</td>
</tr>
<tr>
<td>Gujarat</td>
<td>32</td>
</tr>
<tr>
<td>Haryana</td>
<td>01</td>
</tr>
<tr>
<td>Himachal Pradesh</td>
<td>01</td>
</tr>
<tr>
<td>Karnataka</td>
<td>71</td>
</tr>
<tr>
<td>Kerala</td>
<td>74</td>
</tr>
<tr>
<td>Madhya Pradesh</td>
<td>05</td>
</tr>
<tr>
<td>Maharashtra</td>
<td>68</td>
</tr>
<tr>
<td>Manipur</td>
<td>01</td>
</tr>
<tr>
<td>Orissa</td>
<td>06</td>
</tr>
<tr>
<td>Pondicherry</td>
<td>02</td>
</tr>
<tr>
<td>Punjab</td>
<td>01</td>
</tr>
<tr>
<td>Rajasthan</td>
<td>08</td>
</tr>
<tr>
<td>Tamilnadu</td>
<td>49</td>
</tr>
<tr>
<td>Uttar Pradesh</td>
<td>11</td>
</tr>
<tr>
<td>West Bengal</td>
<td>25</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>424</strong></td>
</tr>
</tbody>
</table>

Table 1.5  Number of Staff and Number of Qualified Staff Working in Schools for Special Education.

<table>
<thead>
<tr>
<th>Name of state</th>
<th>Number of staff</th>
<th>Number Qualified</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andaman &amp; Nicobar island</td>
<td>25</td>
<td>03</td>
</tr>
<tr>
<td>Andhra Pradesh</td>
<td>278</td>
<td>184</td>
</tr>
<tr>
<td>Assam</td>
<td>21</td>
<td>16</td>
</tr>
<tr>
<td>Bihar</td>
<td>136</td>
<td>100</td>
</tr>
<tr>
<td>Chandigarh</td>
<td>15</td>
<td>11</td>
</tr>
<tr>
<td>Delhi</td>
<td>293</td>
<td>227</td>
</tr>
<tr>
<td>Goa</td>
<td>24</td>
<td>15</td>
</tr>
<tr>
<td>Gujarat</td>
<td>204</td>
<td>175</td>
</tr>
<tr>
<td>Haryana</td>
<td>09</td>
<td>03</td>
</tr>
<tr>
<td>Himachal Pradesh</td>
<td>12</td>
<td>09</td>
</tr>
<tr>
<td>Karnataka</td>
<td>534</td>
<td>380</td>
</tr>
<tr>
<td>Kerala</td>
<td>602</td>
<td>420</td>
</tr>
<tr>
<td>Madhya Pradesh</td>
<td>39</td>
<td>36</td>
</tr>
<tr>
<td>Maharashtra</td>
<td>1,135</td>
<td>608</td>
</tr>
<tr>
<td>Manipur</td>
<td>16</td>
<td>07</td>
</tr>
<tr>
<td>Orissa</td>
<td>61</td>
<td>20</td>
</tr>
<tr>
<td>Pondicherry</td>
<td>10</td>
<td>08</td>
</tr>
<tr>
<td>Punjab</td>
<td>12</td>
<td>08</td>
</tr>
<tr>
<td>Rajasthan</td>
<td>74</td>
<td>36</td>
</tr>
<tr>
<td>Tamilnadu</td>
<td>506</td>
<td>312</td>
</tr>
<tr>
<td>Uttar Pradesh</td>
<td>87</td>
<td>59</td>
</tr>
<tr>
<td>West Bengal</td>
<td>373</td>
<td>220</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>4,466</strong></td>
<td><strong>2,922</strong></td>
</tr>
</tbody>
</table>

As we move from the concept of no care to custodial care and to that of education, the physical infrastructure is gradually becoming better. As the need for special education is gaining acceptance, it is necessary to draw up an effective programme of teaching of the mentally retarded. As national resources are scarce and as the need to equip the mentally retarded to live according to his potential is realised, the need to optimise expenditure and to make education effective becomes very important. New strategies, tried out elsewhere, have to be introduced into our system. An understanding of their effect is a prerequisite for widespread dissemination, acceptance and implementation. The ITP the effectiveness of which has been explored and assessed elsewhere is one strategy, which if found effective, could be introduced into the training and education of mentally retarded in Kerala and in India.

The present study is an attempt to assess the effectiveness of Individualized Training Programme for special schools for Mentally retarded in Kerala. The findings it is hoped will contribute to the effectiveness of the programme.
Definition of the Problem

Topic

Effect of individualized training programme on Communication Skills, and certain associated variables in the Mentally Retarded.

Meaning and Definition of terms

The following definitions of terms have been accepted for the study.

Effect

A modifiable connection between a stimulus and response.

Individualized Programme

a. Any programme that, specifies the appropriate instruction, therapies etc., needed by an Individual child or adult.

b. Teaching and study approaches, selected specifically for adaptation to a given pupil's interests, needs, and abilities. For the present study, the programme and approaches would be intended for Mentally Retarded Children.
Communication Skills

Refer to the many ways of transferring thought from one person to another through the commonly used media of speech, written words, or bodily gestures. In this study "communication skills" will include oral, reading, and writing skills, and also socio-emotional and motor skills, which are associated skills.

Mental Retardation

"Mental retardation refers to significantly sub-average general intellectual functioning, resulting in or associated with concurrent impairment in adaptive behaviour, and manifested during the developmental period" (Grossman, 1983). The present study is confined to two categories of the mentally retarded only; the educable mentally retarded, and the trainable mentally retarded children.

Hypotheses

The major hypotheses for the study were:

1. The level of communication skills in the mentally retarded will be related to the degree of retardation.
2. The level of motor and socio-emotional skills of the mentally retarded will be related to the degree of retardation.
3. Planned Individualized Training Programme will have an
46

effect on level of communication skills and certain associated variables in the Mentally Retarded.

4. The degree of effectiveness of planned Individualized Training Programme on the communication skills and certain associated variable of mentally retarded will differ according to degree of retardation and time of intervention.

Operational Translation

The hypotheses were tested operationally as follows:

1. The level of attainment of communication skills and certain associated variables (motor and socio-emotional skills) of educable mentally retarded will be significantly higher than the level of attainment of communication skills and motor and socio-emotional skills of trainable mentally retarded.

2. The level of attainment of communication skills and motor socio-emotional skills of groups exposed to the individualized Training Programme will be higher than the level of attainment of communication skills and motor and socio-emotional skills of groups exposed to the traditional curriculum within educable mentally retarded and within trainable mentally retarded.

3. The effect of the Individualized Training Programme
will be higher on early intervention group than late intervention group.

Objectives

The main objectives of the study were:

1. To measure the level of communication skills in the mentally retarded classified as educable mentally retarded, and trainable mentally retarded, and to compare the levels of communication skills of Educable Mentally Retarded and Trainable Mentally Retarded.

2. To measure the levels of motor and socio-emotional skills in the mentally retarded classified as Educable Mentally Retarded and Trainable Mentally Retarded, and to compare the levels of motor and socio-emotional skills of Educable Mentally Retarded and Trainable Mentally Retarded.

3. To measure the effect of the planned Individualized Training Programme on level of communication skills, and on motor and socio-emotional skills in the mentally retarded classified as Educable Mentally Retarded, and Trainable Mentally Retarded, and to compare the effect of the planned Individualized Training Programme on communication skills and motor and socio-emotional skills of Educable Mentally Retarded and Trainable Mentally Retarded.
4. To measure the levels of communication skills in the mentally retarded classified as Early and Late Intervention Groups, and to compare the level of communication skills between the early and late Intervention Groups.

5. To measure the levels of motor and socio-emotional skills in the mentally retarded classified as Early and Late Intervention groups and to compare the levels of motor and socio-emotional skills between Early and Late Intervention Groups.

6. To measure the effect of the planned Individualized Training Programme on level of communication skills and on motor and socio-emotional skills in the mentally retarded, classified as; Early Intervention and Late Intervention groups, and compare the effect of the planned Individualized Training Programme on communication skills and on motor and socio-emotional skills of Early Intervention group and Late Intervention group.

7. The study should also provide the opportunity to test the capability of the variables taken up for study viz. communication skills and motor and socio-emotional skills to serve as criteria for classification of Educable Mentally Retarded and Trainable Mentally Retarded.
Specific Objectives

The specific objectives of the study were:

1. To prepare the Individualized Training Programme for development of communication skills and motor and socio-emotional skills.

2. To implement the planned Individualized Training Programme as experimental treatment on a sample of mentally retarded, classified further, on the basis of degree of retardation and time of intervention.

3. To measure the effect of the planned Individualized Training Programme on communication skills and motor and socio-emotional skills, in the mentally retarded, classified further, on the basis of degree of retardation and time of intervention.

4. To compare the effects of the planned Individualized Training Programme on communication skills and motor, and socio-emotional skills between the relevant sub-samples among the mentally retarded.

Method of Study

The main objective of the study being the assessment of the effect of Individualized Training Programme on communication skills and certain associate variables of the mentally retarded, the experimental method of study can be expected to be appropriate. Control and
experimental groups carefully selected on the basis of
degree of retardation and level of intervention, and matched
for relevant factors would be drawn from the sample of
mentally retarded. The planned Individualized Programme
would be prepared and implemented for the samples. The
implementation and assessment for effect of the
Individualized Programme would be prepared and implemented
for the samples. The implementation and assessment or effect
of the Individualized Programme on communication skills, on
motor and on socio-emotional skills will be done through the
administration of a number of separate check lists prepared
for the purpose. Comparison between the groups will be made
by the application of appropriate statistical procedures.
The capability of the variables will be taken up for study
to serve as criteria for classification of Educable Mentally
Retarded and Trainable Mentally Retarded. The survey method
will be adopted for the limited purpose of collection of
information on communication skills, motor and socio-
emotional skills. Conclusions will be drawn on the basis of
the analysis. Suitable suggestions for special education,
and for further research are expected to be framed.

Summary of the Report

The need and significance of the study are
established in Chapter I. The second part of Chapter I
defines the topic. The theoretical constructs and overview of the literature are presented in Chapter II. The methodology is detailed in Chapter III, which concludes with collection of data. The processing of data and the findings arrived at are described in Chapter IV. The conclusions of the study and the suggestions arising out of this study are presented in Chapter V. The implications of this study for the area of mentally retarded, and for further research complete the report.

A few case studies will be given in Chapter V.