THEORETICAL BACKGROUND
MENTAL RETARDATION

There can be no denying that scientific knowledge of the condition called 'mental retardation' is very recent and inconclusive. It may be described as a condition where an individual lags behind those of his own age group. It is a condition resulting from an organic or developmental deficit which manifests itself in below average intellectual functioning and difficulty in learning social behaviour.

Mental retardation is a complex problem and it is not a disease or an illness which can be treated with medicines. It is a human condition of development and individuals have to live with it. Since many professional groups have concern for the area of mental retardation, education and training of those in contact with the person can help in significantly reducing the handicap.

Different disciplines have defined 'retardation' in terms of their own speciality, thus an individual who is considered retarded from an educational point of view may not be so considered in a medical or social framework. Of late, increased agreement has been reached at psycho-educational field in defining the term. Mental retardation is becoming accepted as a broad generic term including a wide range of physical and psychological characteristics. However, all
persons falling in this category have one common condition; i.e. subnormal intellectual development.

In this chapter the following aspects relating to mental retardation are discussed:

1. Concept of intelligence.
2. Classification of mental retardation.
3. Characteristics of mentally retarded.
4. Etiology.
5. Psycho-social problems.
6. Strategies to deal with problems of the mentally retarded.

CONCEPT OF INTELLIGENCE

The concept of mental retardation and the concept of intelligence are so intimately related that it is virtually impossible to describe about one without making a statement of the other. Baroff (1974) states that the question of mental retardation are at once both simple and complex. At its simplest level it involves the well accepted notion that there is such a thing as intelligence and that people differ in the degree to which intelligence is possessed. But the question immediately becomes more complex when it is asked what is meant by 'intelligence' and to who should the term ‘mentally retarded’ be applied. Mental retardation is usually considered to be fundamentally a defect in intelligence, and hence one’s beliefs about the nature of intelligence must necessarily have an effect on one’s views about the nature of mental retardation.
Psychologists have not yet been able to arrive at one common definition of intelligence.

A number of people have defined intelligence in very global terms rather than in terms of a specific ability. According to Wechsler (1944), "Intelligence is the aggregate or global capacity of the individual to act purposefully, to think rationally, and to deal effectively with his environment ", and according to Stoddard (1943), "Intelligence is the ability to undertake activities that are characterised by (1) difficulty, (2) complexity, (3) abstractness, (4) economy, (5) adaptiveness to a goal, (6) social values, and (7) the emergence of originals, and to maintain such activities under conditions that demand a concentration of energy and a resistance to emotional forces".

Piaget's (1952) theory deals with the development of cognitive processes in the individual.

Zeaman and House (1966) have reviewed the research on the relationship between learning and intelligence (as measured by performance on standard intelligence tests), and they concluded that as long as the learning task is simple enough subjects of low intelligence are not poorer learners than subjects of higher intelligence, although the results are far from clear. An important exception to this generalization is school learning.

Some workers in the field believe it is inappropriate or even misleading to think in terms of
general intelligence as measured terms by standard tests. Bijou (1966a), prefers to think in terms of a functional analysis of behaviour. He stresses that behaviour should be assessed in field situations, that is, in the natural settings in which it occurs.

Cromwell (1967) who rejected the conventional definition of intelligence that emphasized only its cognitive aspect has defined intelligence operationally, making no distinction between cognitive process and product and further suggested that intelligent behaviour must be defined in terms of a sequence of observable behaviours. In that way, specific behaviours can be identified, and they often can be trained, improved, or made more efficient. Intelligence is viewed not as a constant, but rather as composite of many factors, some of which may improve over time whereas others may not improve or may even show decrements.

According to Wesman (1968), "Intelligence is a summation of learning experiences". This definition implies that intelligence tests are not measuring an ability or potential as much as they are measuring achievement.

The work of Guilford et al. (1971) best represent the current findings concerning the structure of intelligence. Guilford believed that intelligence consists of five operations namely, cognition, memory, divergent production, convergent production, and evaluation. In addition to these operations, mental
functioning is characterized by two other dimensions: content and product. Each dimension has a specific number of characteristics of all dimensions into all possible combinations yielding a total of 120 unique intellectual abilities.

There are various terms used to refer to mental retardation. Generic terminology of retardation in the United States includes such terms as mental retardation, mental deficiency, mental defective, and mentally handicapped; England uses the general term feeble mindedness; in Russia, France and the Scandinavian countries its oligophrenia; the World Health Organisation (WHO) recommends subnormality; and certain psychiatric and medical journals use amentia. The confusion is aptly demonstrated with terms used to describe the various degrees of retardation. For example, terms used to describe the different levels of retardation are educable mentally retarded or educable mentally handicapped, mildly retarded, high-grade retarded, marginal independent, moron and slow learners.

Second level are trainable mentally retarded, trainable mentally handicapped, moderate and severely retarded, dependent retarded, developmentally young, semi-dependent, middle-grade retarded or imbecile.

The lowest level of retardation has been referred to as profoundly retarded, custodial, severely retarded, severe mental deficiency, totally dependent, untrainable, low-grade retarded or idiot.
Most of the contemporary psychologists and psychiatrists prefer to use the terms 'mental deficiency' or 'mentally retarded'.

The condition of mental retardation has been defined in many ways and can be attributed to a combination of reasons. Definitions typically reflect the current socio-cultural standards of a given society, and these change constantly. Mental retardation is an extremely complex condition and many professional groups have concern for the area of mental retardation. It is not surprising that lack of uniformity exists in defining the field and comparing research findings. Besides the different disciplines (i.e. education, psychology, medicine, law, and so forth) have coined terms or definitions to suit their own area. A good definition for one discipline may be a poor one for the other.

The traditional clinical viewpoint regards mental retardation as a handicapping condition which exists in individual persons. According to Jervis (1952), "mental deficiency may be defined from a medical point of view as a condition of arrested or incomplete mental development induced by disease or injury before adolescence or arising from genetic causes".

Royce (1955) states that due to the defective development in the cerebrospinal system, which is generally incurable and unpreventive, the condition of inferior learning takes place and the child learns at a slow rate.
According to Benoit (1959), mental retardation is "a deficit of intellectual function resulting from varied intrapersonal and/or extrapersonal determinants, but having as a common proximate cause, a diminished efficiency of the nervous system thus entailing a lessened general capacity for growth in perceptual and conceptual interpretation and consequently in environmental adjustment."

Ingram (1953) has defined mental retardation from the educational point of view: The term 'slow learning' is used by many as a designation for any child who cannot meet average grade academic standards year by year. This group comprises approximately 18 to 20 percent of the school population those who measure approximately 50 to 89 IQ on individual standardized intelligence scales. Within these classifications the terms 'borderline or dull normal' are generally applied by the psychologist to those who measure approximately IQ 75 to 89. This is the larger group, comprising 16 to 18 percent of the school population.

Bijou (1966) suggests that a "retarded individual is one who has a limited repertory of behaviour shaped by events that constitute his history. Further, retarded behaviour is a function of observable social, physical, and biological conditions, all with the status of independent variables. In the traditional view, retarded behaviour is said to be caused by either hypothetical psychological concepts (e.g., 'defective
intelligence' or hypothetical biological concepts (e.g. 'constitutional defect').

According to sociologist Mercer (1973), "it is the individual's social system that determines whether he or she is retarded".

Definition by Grossman (1983), accepted widely, is the one used by American Association on Mental Deficiency (AAMD), which states "mental retardation refers to significantly subaverage general intellectual functioning resulting in or associated with impairments in adaptive behaviour and manifested during the developmental period".

World Health Organisation (WHO) document 'Mental Retardation-Meeting the Challenge' (1985), has defined mental handicap as follows:

'As the term used today, mental retardation involves two essential components:

- intellectual functioning that is significantly below average.

- marked impairment in the ability of the individual to adapt to the daily demands of the social environment. There is now widespread agreement that BOTH intellectual functioning AND adaptive behaviour must be impaired before a person can be considered to be mentally retarded. Neither low intelligence nor impaired adaptive behaviour alone is sufficient.
According to Symansky and Crocker (1985), the term mental retardation denoted certain behavioural pattern that deviated from social norms.

According to Mittler (1986), there is considerable uncertainty about terminology at the present time. The major terms tend to be used interchangeably e.g., mental retardation, mental handicap, intellectual handicap/disability/impairment. Since the International Year of Disabled Persons (1981) and the World Programme of Action for the Disabled (1983-1992), documents increasingly refer to 'people with' retardation, mental handicap, etc., rather than the term retarded.

World Health Organisation Technical Report Series (1991) defines mental retardation as "a condition of arrested or incomplete development of the mind, which is specially characterized by impairment, manifested during the developmental period, of skills that contribute to the overall level of intelligence, i.e. cognitive, language, motor and social abilities. Retardation can occur with or without any other mental or physical condition ".

Mental retardation involves two components, both of which must be present: intellectual function significantly below average and marked impairment of the ability to adapt to the daily demands of the social environment.

Intellectual handicap is classified as mild, moderate, severe or profound. Mental retardation can be caused by a variety of biological, psychological and
social factors. It can lead to disability and constitutes a risk factor for the development of a variety of psychiatric disorders or maladaptive behaviours, further impairing function.

Studies in developed countries, for example, have shown that between one-quarter and one-half of the people who are mentally retarded experience psychiatric or behavioural disorders. Careful diagnostic assessment of these disorders is needed, especially in the more severely retarded, in whom gross cognitive impairment may obscure and otherwise modify their typical features".

**CLASSIFICATION**

Most professionals classify retarded individuals according to severity of their problems the most generally accepted approach is to consider retardation as existing on a continuum or scale of severity.

The earliest attempt at classification of the mentally retarded individuals was made by the British psychologists before the beginning of this century. The individuals were divided into three broad categories, viz, idiots, imbeciles and morons. This classification has been discontinued since long and classification based on intelligence has come in to use.

Since intelligence is a continuous function, it is difficult to arrive at agreement on the demarcation line between normality and subnormality. Intelligence Quotient (IQ) is an index of the mental status of an individual. The greater the IQ, the greater will be
the range of behaviour (Robinson & Robinson, 1965). That is to say, the greater the retardation, the narrower is the range of behaviour.

From earlier days it has been assumed that intelligence is normally distributed in the population with the majority of the people being of medium or near average intelligence.

If the intelligence amongst the population is distributed on a graph, the curve would resemble a bell. This would indicate that the concentration of intelligence is most around the centre and tapers off from the central high point to the left and right ends. There are relatively few measures at the lower end of the scale, a gradual increase till the maximum at the centre, and then a progressive fall towards the higher end of the scale. If a vertical line is drawn from the central position, the two parts would be very nearly equal in area.

The same IQ on different IQ tests does not carry the same meaning. Different tests evaluate different abilities and hence IQs vary from test to test. Some test may be based on non-verbal reasoning, while other test may be heavily loaded in verbal factor. IQ must not be accepted as the sole criterion of mental retardation as even the most perfectly standardized tests of intelligence are subject to some degrees of error. Intelligence test scores sometimes show fluctuation, though they are generally constant.
Similarly, social incompetency as the sole criterion as suggested by Tredgold (1952) will have to be rejected. The standards of a satisfactory social adjustment are arbitrary and vary from one society to another.

Various educators and educational psychologists are using many closely related educational classification systems. Gearheart (1972) condensed many educational classifications and offers this general IQ grouping pattern.

Dull normal
Educable mentally retarded (EMR) IQ 50 to 75
Trainable mentally retarded (TMR) IQ 30 to 49
Totally dependent IQ below 30

The educational break-down of the above categories of intelligence are as follows:

Individuals belonging to this group (though mentally retarded) can attain certain levels of learning but at a very slow speed. They take much longer than normal children of their own chronological age and their performance is just about average. Such individuals are sometimes termed 'academically handicapped' and not mentally handicapped. According to Kirk (1972), these individuals can be educated in regular schools.

With IQ's in the 50 to 75 range, the 'educable' mentally handicapped individual has a mental age of one half to three quarters of his chronological age. As adults, 'educable' mentally retarded individuals will
have a mental age of eight to twelve year range. These individuals need placements in special classes, as they cannot profit much from educational programmes in regular classrooms and the normal schools, due to their subnormal mental capacities and slow mental development. They possess the following potentialities:

(i) Minimum educability in reading, writing, spelling and arithmetic.
(ii) They can get along independently in the community, and are able to manage their own affairs by themselves.
(iii) They can economically support themselves totally or at least partially.

With IQ's in the 30-50 range, referred to as 'trainable' mentally handicapped individuals, will have mental age between four and eight years. Therefore as a group, they cannot be expected to be literate. However, they have the capacity to be trainable in the sense of developing some skills in self-care and socialization, including oral communication. Nevertheless, they will usually require a sheltered environment throughout their lives.

According to Kirk (1972), the totally dependent child/individual can not be trained in self-care, socialization or in economic usefulness because of his markedly subnormal intelligence.

Individuals with IQ below 30, as adults will not have mental age above four years. Since they cannot
reasonably be expected to acquire appreciable skills even in self-care, they will require permanent custodial attention throughout their lives.

The medical classification is mainly of concern to medical specialists. It involves ten categories of physical and etiological factors ie, trauma and physical agents, infections and intoxication, metabolism and nutrition, unknown prenatal influence, gross brain disease (postnatal), chromosomal abnormalities, gestational disorders, environmental influences following psychiatric disorder and other conditions.

According to Grossman (1973), American Association on Mental Deficiency’s (AAMD) assessment of intelligence usually involves the administration of one or more intelligence tests. When the measure or estimate of IQ score has been obtained, the individual is assigned, in terms of intellectual functioning, to one of the levels of retardation indicated in Table 2.1. Each level is defined by the amount to which the IQ score is below the average of a given test in terms of standard deviation units. There are only four levels of retardation, ranging from mild to profound. In the earlier manuals developed by the AAMD there were five levels, but the borderline level now has been eliminated, and the present manual recommends the use of the term ‘borderline intelligence’ instead of the earlier term ‘borderline retardation’ for persons whose
IQ scores are above the classification of mild retardation (between 1 and 2 SD units below the average).

All behaviours of an individual (i.e. intellectual, social, physical, emotional) exist as a part of his total adaptation to the environment. As with intelligence, adaptive behaviour is characterised in terms of levels. In 1970, the AAMD proposed six definitions of general adaptive behaviour levels but recognised only four in 1973 (Grossman, 1973). The AAMD system (Grossman, 1983) is depicted in Table 2.2. There are three reasons why most professionals agree that this system is most useful. The terms used mild, moderate, severe and profound retardation do not carry the degree of negative stereotyping of earlier descriptions (idiot, feeble-minded). The terms used emphasize the level of functioning of the individual. The use of bands of IQ scores for example 50-55 as the cut of between mild and moderate retardation leaves room for clinical judgement and recognizes that IQ scores are not perfect predictors of a person’s level of retardation.

The AAMD manual states that “a narrow band at each end of each level was used to indicate that clinical judgement about all information, including the IQs, and more than one test, the information about intellectual functioning obtained from other sources, etc. is necessary in determining level. Thus, someone whose full scale Wechsler IQ is 53 might be diagnosed
### Table 2.1

**Levels of Measured Intelligence in terms of Standard Deviation Units. American Association on Mental Deficiency (1973)**

<table>
<thead>
<tr>
<th>Retardation Level</th>
<th>Range in SD Values</th>
<th>Range in Stanford-Binet Scores</th>
<th>Range in Wechsler Test Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mild</td>
<td>-2.01 to -3.00</td>
<td>68 to 52</td>
<td>69 to 55</td>
</tr>
<tr>
<td>Moderate</td>
<td>-3.01 to -4.00</td>
<td>51 to 36</td>
<td>54 to 50</td>
</tr>
<tr>
<td>Severe</td>
<td>-4.01 to -5.00</td>
<td>35 to 20</td>
<td>39 to 25</td>
</tr>
<tr>
<td>Profound</td>
<td>Below -5.00</td>
<td>19 and below</td>
<td>24 and below</td>
</tr>
</tbody>
</table>

### Table 2.2

**Level of Retardation Indicated by IQ range obtained on Measure of General Intellectual Functioning.**

<table>
<thead>
<tr>
<th>Term</th>
<th>IQ Range for level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mild mental retardation</td>
<td>50-55 to approx 70</td>
</tr>
<tr>
<td>Moderate mental retardation</td>
<td>34-40 to 50-55</td>
</tr>
<tr>
<td>Severe mental retardation</td>
<td>20-25 to 35-40</td>
</tr>
<tr>
<td>Profound mental retardation</td>
<td>Below 20 or 25</td>
</tr>
<tr>
<td>unspecified</td>
<td></td>
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</tbody>
</table>
as either mild or moderate, depending on other factors, such as the relative difference in performance and verbal IQ, or results of other tests" (Grossman, 1983). Thus, it is seen that AAMD (Grossman, 1983) classifies mental retardation at four levels, i.e., mild, moderate, severe and profound, while World Health Organisation (1991) classifies mental retardation at three levels, i.e., mild, moderate, severe or profound.

**Characteristics of the Mentally Retarded**

Due to low intelligence level, personality traits and behaviour patterns of mentally retarded individuals deviate from normal. Most of the retardates are exploited by society, ignored by community, neglected or rejected at home and misplaced in school, thus leading to adjustment problems.

A standardised test of intelligence is used to diagnose mental retardation in an individual. On the basis of the individual's performance, he is classified as being 'normal' or 'subnormal'. They are slow in learning, and developmental milestones are delayed. A mild retardate is identified only after his experience at school for a year or two. They are also referred to as educable. According to Kirk and Gallagher (1983), if they are supported by special education programming, educable mentally retarded can achieve academically through an advanced elementary grade level, can learn and adaptively practice independent social living skills in the community; and can use specific job
training to attain partial or total financial Self-Support as adults.

Moderately mentally retarded is a category within a classification scheme used to differentiate levels of educability of mentally retarded individuals. They are also referred to as trainable mentally retarded (TMR). This category of individuals cannot be expected to be literate or to achieve functionally useful academic skills. They can develop skills in bathing, toileting, feeding, communication skills, good work habits, social skills and leisure behaviour. Most of them need guidance and supervision in social and personal problems, and require a sheltered environment all through their life. According to Snell (1983), 'the technology of educating TMR individuals with respect to functional goals has improved considerably'.

Severely mentally retarded individuals fall in the IQ range of 25-39 as per Grossman (1983). Many individuals in this category suffer from damage to central nervous system and other associated handicaps. Their motor and speech development is slow. Persons with severe retardation participate more fully in their home communities with appropriate training and support. They require medical care and require custodial care as they cannot acquire skills even in self-care.

The severity of retardation is such that it interferes with the total life-functioning ability of the individual. These individuals need constant
attention and supervision. This group makes up the smallest subgroup within the area of mental retardation. They suffer from speech, hearing and vision impairments. A common characteristic of the profoundly retarded is the presence of stereotypic behaviours (rocking, biting of self, hand-flapping). Their life expectancy is shorter than normal (Grossman 1977).

Mentally retarded individuals suffer from a variety of social and emotional problems. Being referred to as the 'dummy' in a group of children is almost certain to be detrimental to an individual's feelings of self-worth. In fact, according to Leahy, Balla and Zigler (1982), retarded people's self-concepts tend to be lower than those of non-retarded individuals. In addition to lower self-esteem, retarded students are at risk for other behaviour problems, such as disruptiveness and inattention.

Among those who have pointed out the importance of personality characteristics in retarded individuals, Balla and Zigler have been the most influential (Balla and Zigler, 1979). They maintain that retarded behaviour is the consequence not only of low intelligence, but also of personality and motivational factors. Many retarded individuals, because of past experiences, have a high expectancy of failure. And this expectancy influences how they approach most situations that require cognitive skills.
The terms outer-directed (as opposed to inner directed) and external locus of control (as opposed to internal locus of control) have been used to describe the lack of confidence some retarded people have in their own abilities. Research has shown that many retarded individuals do not believe they are in control of their own destinies; they believe that they are controlled by external or outside forces. They tend to think that things happen to them by chance and that they themselves can do little to change anything. Given the regimentation of some institutions and the failure experiences of some mentally retarded children reared at home, it is not surprising that retarded people generally rely on others for help rather than on themselves. Along these lines, Harter and Zigler (1974) found that mentally retarded individuals are less likely to engage in challenging tasks. Weisz (1981) found that retarded individuals, when given negative feedback on cognitive tasks they were performing, they stopped looking for effective strategies, whereas, their non retarded counterparts actually increased their search for effective solutions. Weisz (1982) characterised the passive behaviour of many retarded children as 'the pencil-down' syndrome, in which children react to a problem they cannot solve quickly by placing pencil on desk and sitting passively, making no effort to persist at the puzzling problem, go on to another or request assistance. One experimental teacher explained that
these children go into any new situation expecting to fail; when the going gets tough, they quit trying.

**ETIOLOGICAL FACTORS OF MENTAL HANDICAP**

It is generally accepted that prevention is the ultimate goal of all the efforts to combat mental handicap. Identification of etiological factors is essential for any sound programme of prevention. In a study by Narayanan (1981), about 23 percent of the total referral to the National Institute of Mental Health and Neuro Sciences in Bangalore, brain damage occurred due to baby battering. Alcoholism and family conflicts may lead one or both parents hitting the child especially on the head resulting in brain damage. There are various factors that are responsible for causing mental retardation. They may be broadly grouped into prenatal, perinatal and postnatal factors.

**Prenatal Causes**

**Chromosomal Disorders.** There are 23 pairs of chromosomes in each human cell. Every person gets half the number of chromosomes from each parent. Errors in chromosomes produce conditions with medical problems and most of these conditions cause mental retardation. The error may be in the number of chromosomes being too many or too few or the error may be in the structure of the chromosomes. One common condition due to error in the chromosome number that is detected is the Down’s Syndrome, which forms about 10 percent. In this condition generally there is an extra chromosome at
number 21. The total of chromosomal aberrations forms about 10-15 percent. It was noted that parental consanguinity was present in 67 percent of the families, where there was more than one child affected with mental handicap. In these multiple affected sibships, parental consanguinity had decisive influence (Narayan et al., 1973). Persons with Down's Syndrome have striking physical features such as widely set slanting eyes, depressed nasal bridge, open mouth, thick tongue, low set small ears, short limbs, short fingers etc.

Genetic Disorders. Defect in the genes, transmitted from parent to the offspring can result in certain conditions with mental retardation. The parents may not have the defect or even if the parents have the defect they may not manifest the condition. A number of genetic disorders are recognised. In some of these genetic disorders, there is a metabolic abnormality and a specific enzyme may be deficient or absent. This results in accumulation of specific substance in the body including the brain resulting in brain damage. This causes mental retardation. Some of the examples of such genetic disorders are phenylketonuria, mucopolysaccharidosis, lipidoses etc.

Lack Of Nutritious Diets. During pregnancy the developing brain of the foetus can be damaged due to viral infections, malnutrition, especially lack of proteins which are essential for the growth of the brain, may cause poor development of the brain (Narayanan, 1981).
Prabhu (1975) argues that India provides varied nutritional habits which cut across socio-economical data. Some poor communities do have a rich protein diet. The observation of the Indian scene indicates that relationship between intelligence and nutritional habit is not a simple one and predictions of nutritionists that high protein diet is an essential necessity for attaining a high intellectual level may require careful evaluation.

Infections in the mother, especially those during the first three months of pregnancy can damage the developing brain of the foetus. Some of the infections that affect the foetus are rubella, herpes and cytomegalic inclusion disease, toxplasmosis, syphilis and tuberculosis meningitis.

Infections like tuberculosis meningitis is one of the most significant pre-natal cause for mental handicap (Narayan, 1981). Phenylketonuria was seen among one percent of the mentally handicapped in a study done by Narayan (1981).

Maternal diseases such as diabetes, and high blood pressure, chronic problems in the kidneys and malnutrition in the mother can damage the growing foetus. Conditions such as hyperthyroidism in the mother may lead on to the birth of the child with cretinism. Excess of thyroid in the mother can produce defects in the central nervous system of the growing foetus, leading to mental retardation. Exposure to x-ray in the early months of pregnancy,
using harmful drugs especially those used in the treatment of cancer, and some of the antiseptic harmones can damage the growing foetus. Uncontrolled epilepsy in the mother during pregnancy and during infancy care can cause brain damage which could lead to mental handicap. In a study conducted by Narayanan (1981), 12.3 percent of the mentally handicapped in the residential institution had epilepsy. However, the etiology was unknown. Congenital defects of the central nervous system such as hydrocephalus, microcephaly and a number of defects of the brain and spinal cord are associated with mental retardation.

Perinatal Causes

The Perinatal causes of mental retardation are Premature birth (being born between 28 weeks and 34 weeks) due to various causes, low birth weight babies, lack of respiration immediately after birth (the brain suffers irreversible damage if it is deprived of oxygen for 4 or 5 minutes), trauma to the head of the new born due to factors such as excessive moulding due to disproportion between foetal head and birth canal or prolonged labour or delivery by improper use of instruments.

Abnormal position of the foetus in the uterus, excessive coiling of umbilical cord around the neck of the foetus, abnormal position of the placenta, toxaemia of pregnancy with high blood pressure and fits in the mother, haemorrhage or bleeding in the brain of the new
born due to various causes, severe jaundice in the newborn due to various causes, medicines administered to mother such as anaesthetics and painkillers are all causes of mental retardation.

**Postnatal Causes**

Brain is vulnerable to malnutrition during 12 -18 weeks of foetal life, when multiplication of nerve cells is very active and from birth to the end of 2nd year of life. Inadequate intake of proteins and carbohydrates during this period predisposes to mental retardation. Infections in the child such as meningitis or encephalitis (brain fever), can lead on to mental retardation. Repeated fits in the child can damage the brain and lead on to mental retardation, as also injury to brain from accidents or falls.

**PSYCHO-SOCIAL PROBLEMS OF MENTALLY RETARDED CHILDREN**

The essential defining feature of mental retardation is lower intelligence than that displayed by the model member of majority of the population. However, the behaviour of the retarded is not the immutable product of low intelligence alone. A striking feature encountered among retarded individuals is the variety of behaviour patterns they display. The mentally retarded individuals differ widely in regard to their motives, attitudes and experimental backgrounds.

Recently, progress has been made which supports the view that it is not necessary to employ construe
other than those used to account for the behaviour of intellectually average individuals in explaining the behaviour of the familial retarded. Research strongly suggests that many of the reported differences between retarded and intellectually average children of the same mental age are a result of motivational and emotional differences which reflect differences in environment histories, and are not a function of intrinsic differences (Zigler, 1969). This is not to say that the cause of familial retardation is motivational; the cognitive functioning of the retarded unquestionably has a profound and pervasive influence on their behaviour.

**BEHAVIOURAL PROBLEMS**

Chess (1964) has defined base line normal behaviour as "He gets along reasonably well with his parents, siblings, and friends, has few overt manifestations of behavioural disturbance, in using his apparent intellectual potential close to its estimate, and is contented for a reasonable proportion of the time". There are a number of other definitions which similarly stress the child's problems and malfunctioning in terms of a wide range of experiential factors. The recent nomenclatural system of the emotional disturbances in childhood suggested by the Group for the Advancement of Psychiatry (GAP, 1959) embraces the symptomatic and developmental parameters that are important. The GAP report reviews the
spectrum of emotional disturbance from the minor (e.g. adjustment reactions in childhood) to the major personality disturbances (e.g. psychoses of childhood). These considerations suggest that description of emotional disturbance in the mentally retarded must include minor adjustment patterns as well as serious conflicts within retarded individuals and their families. The presence of a disturbing influence such as excessive anxiety may reduce their effectiveness so that they have greater difficulty in dealing with emotional and stress situations and thus further hamper their adaptive behaviour. This commonly leads to much unhappiness among themselves, and with the world around them.

A number of excellent literature concerning the relationship between disturbance and mental retardation are available (Garneid, 1963 and Beir, 1964). Mental retardates as a group have a higher incidence of behaviour disorder than is found in the general population. This association between retardation and behaviour disorder has been of continuing and increasing interest and their co-existence in the same individuals raises several basic questions regarding this relationship.

The cause of hyperactivity is still poorly understood and sensory hyperactivity can be blamed for it in only some cases (Zigler, 1966). The hyperactive mentally retarded child because of his short attention span and his restlessness finds it difficult to adapt.
to the already handicapped process of learning and socialization (Leland, 1972). His behaviour is disruptive to the smooth functioning of any group and prevents the child’s integration in such groups. The reaction of the group members to such disruption may be one of rejection, exclusion, punishment or disorganization of the group itself.

Some children with hyperactivity to environmental stimuli resort to screening out behaviour, as if attempting to create their own artificial stimulus barrier. Such children either avoid situations involving intense stimulation, anxiety or frustration, or develop a capacity to tune out the environment and remain irresponsible. Whether such a defence manoeuvre is adaptive, depends on the degree to which the environment fails to make an impact upon the child. Some capacity to avoid or screen out excessive stimulation may help the child maintain his emotional equilibrium. However, if carried to excess, it may lead to autistic aloofness and a creation of an invisible impenetrable wall, preventing any interaction between the child and his environment.

Irritability presents another behavioural reaction of the hypersensitive child. It may be pervasive, always present, or it may appear only in sporadic bursts at times of increased environment or inner stimulation, a form of irritability closely related to low frustration tolerance exhibited by such children. Often, even a momentary delay in gratification, a mild
reprimand or a blocking of undesirable behaviour leads to a disorganisation ranging from irritability to a violent temper tantrum. It often amounts to a total inability to tolerate even mild degrees of anxiety or uncertainty associated with pleasant experiences. The response of the environment to such an irritable, easily frustrated child may be one of annoyance, anger, pensiveness or exclusion (Jervis, 1968).

Aggressive behaviour is often seen in moderately or severely retarded children. It often takes the form of pan-aggression directed indiscriminately towards anybody approaching the child and intruding on his private world. In other children, the aggression is directed only towards certain people. The aggressive behaviour may be totally unprovoked and unpredictable and it is often coupled with destruction of toys and furniture. Such aggressive behaviour may be related to the previously related irritability and low frustration tolerance or it may be a reaction to inappropriate handling.

The origin of aggressive behaviour is still not understood completely but there is that pathological changes in the brain may result in aggressive behaviour in both humans and animals. On the other hand, negative environmental influences may induce aggression in a person with an intact central nervous system (Harrison, 1980). The mentally retarded child is vulnerable in both these aspects.
The aggression of the mentally retarded child is coupled with general poor impulse control and impulsive behaviour of all undesirable behaviour traits of the mental retardate; aggressive and destructive behaviour evokes the most intense reactions in the environment of helplessness, anger and a desire to eliminate the aggressive member of the family or the class, are among the most common reactions. It is no wonder that such behaviour is the leading cause of institutionalization of the mentally retarded child (Gath, 1977).

Many mentally retarded children seem unable to tolerate change. That handicap may extend to different areas in the child's life. The reactions of the child may range from mild irritability to a total behavioural disorganisation.

PERSONALITY DEVELOPMENT AND RELATED PROBLEMS

Difference in the degree of intellectual functioning in the mentally retarded are compounded by the divergence of casual factors, ranging from brain damage to emotional and cultural deprivation. The resulting extreme heterogeneity of the mentally retarded is probably responsible for the often conflicting and confusing views about their personality development and frequency of psychopathology. The paucity of well conducted studies and surveys that use similar standardized methods of investigation add to the confusion. Most assumptions are based on studies using residents in state insitutions or patients in psychiatric clinics and hospitals.
Personality factors are as important in the adjustment of the retarded as intellectual factors has been noted by many workers (Penrose, 1963; Sarason, 1953; Tizard, 1953; Windle, 1962; Zigler, 1971). The tendency to overemphasize the importance of the intellect in adjustment has been documented by Windle (1962). On the basis of a survey he found that most institutions presume that intelligence is the critical factor in adjustment after release. Windle, as well as McCarver and Craig (1974) pointed out that majority of studies have reported no meaningful relation between intellectual level and adjustment after release from institutions. Rather, in this literature the factors suggested as associated with poor social adjustment include anxiety, jealousy, overdependency, poor self-evaluation, hostility, hyperactivity, and failure to follow orders even when requests were well within the range of intellectual competence.

Personality characteristic can be reviewed from both the intrinsic and extrinsic environmental dimensions. Pertinent to the intrinsic factors, as to psychological growth, is the emerging realisation that there are unique and primary personality features in mentally retarded children. Webster (1963), has listed these factors as follows: (a) the intellectual impairment and specific learning difficulty which is present; (b) disturbances in the quality of emotional development itself, with distinct developmental impairments in the differentiation of the ego
functions. This last factor results in slow and rather incomplete unfolding of the personality with associated distinct personality features such as (1) A non-psychotic autism which may be displayed as marked passivity; there is a 'take it or leave it' aspect of their interactions with people (though they do have a capacity for social related activity). (2) Repetitiousness is another distinct personality feature and associated element of contentment noted at these times. The young mentally retarded child does not exclude the unfamiliar—he is just not too interested in it. (3) There is also much inflexibility as to overall personality functioning and this appears to be related to both the repetitiousness and their seeming lack of interest in seeking out new external stimulation (except to a rather immediate or direct reward system). Lastly, (4) there is a noted simplicity of the emotional life wherein simple and direct expressions of needs and drives are in the foreground.

Play is very important in the development of healthy personality. It permits experimentation and the finding of solutions to problems, it represents a medium of expression of feelings and ideas; and it provides a model for social interaction. The mentally retarded child may lack originality in his play. He may lean towards repetitions and stereotypes, particularly, if there are organic bases for his difficulty. Such children use a minimum of toys and
are often unable to play in large groups or initiate play without help. That inability may deprive them of yet another vehicle of emotional growth, unless programmes are not set up to help overcome those handicaps (Panek et al., 1980).

Concerning the extrinsic factors, the effects of deprivation in all forms, from maternal to sensory, can have devastating effect on personality development. Here the stress would be on (1) the significance of early mother-child interactional unit to early personality development and the construction of reality in the child; and (2) this same early mother-child interaction unit as the earliest proto-relationship for instilling the "learning to learn" attitudes in the child. In these two aspects of the primary mother-child interaction unit, one notes the raw ingredients for both future psychiatric and learning disabilities (e.g., lack of an identification model for early learning and environmental exploration).

Essential to external factors for psychological growth of the mentally retarded child is the dimension of his family and here the wide spectrum factors are focused. How much does the family individualize the child as a part of the total family support system? The relationship between the mother and her own mother is most crucial, since a number of studies have shown that the maternal grandmother must support the mother emotionally in her methods of child care or a series of events may occur which become the reason for
institutionalization of the young mentally retarded child (Farber, 1960). Many young mentally retarded children tend to need 'extra' parenting, and this parenting must be focused on the child's specific needs and developmental levels (both intellectually and emotionally), or emotional disaster may follow. Accordingly, the young mentally retarded child needs family and social reinforcements to promote and allow personality development to unfold and also to facilitate the evolution of important functions of intelligence, such as language. Since language is a symbolic system which, by definition is a learned phenomenon, it does not 'automatically' unfold or develop but needs continual interaction and positive reinforcement from a meaningful adult. The child thus needs a human model for language learning and this model must be provided within the context of a passive dependent relationship with a significant authority figure (preferably one who has both, a positive philosophy and attitude towards child care).

The growing mentally retarded child becomes progressively aware of being different from other normal people and such an awareness may result from an evaluation of his performance and a comparison with the performance of other members of his family or social group. The comparatively bright mentally retarded child is more prone to view himself as damaged, inadequate or bad than is the more retarded child, who lacks the capacity for introspection and objective
evaluation of his performance. The feeling of inadequacy and low self-esteem may lead to overt depression, with attendant psychomotor retardation and social withdrawal. This depression is sometimes masked and leads to delinquent and antisocial behaviour, disruptive classroom behaviour, hyperactivity or physical symptoms. The mentally retarded adolescent is particularly vulnerable to feelings of inadequacy and poor self image. His developing intellect permits fairly accurate self-evaluation and his progressive loneliness, as his neighbourhood play companions and siblings pass him one by one, makes denial of his inferiority difficult or impossible.

The emotional disturbances in the mentally retarded child must be approached in a preventive sense. Since their developmental personality characteristics and its related problems are known, they should be provided continually with an environment that is conclusive to emotional growth and prepare the child for predictable crisis situations in a positive and preventative fashion. Attention to these factors can provide the child with optimal emotional maturation for living and also prevent developmental crises later in life.

The range of symptomatic behavioural patterns are endless in retarded and non-retarded children. Hyperactivity can emanate from a variety of intrinsic, extrinsic or combined etiologies. Likewise, so can
obstinacy, temper tantrums and 'acting out' behaviour be caused by wide variety of etiologies.

Another frequently mentioned as a determinant in the performance of the retarded is their high expectancy of failure which has been viewed as a consequence of a lifetime of failure experiences resulting from frequent confrontation with tasks with which the retarded are intellectually ill-equipped to deal. These failure experiences and failure expectancies affect a wide variety of behaviour in the intellectually average (Gruen, Ottinger and Ollendick, 1974; Katz, 1964; Kier and Zigler, 1975; Rotter, 1954; Sarasan, et al. 1960).

The work of Cromwell (1963) and his colleagues has lent support to the general propositions that retarded individuals have a higher expectancy of failure than individuals of average intellect. Studies by Macmillan and Koegh (1971) and Macmillan and Knopfn (1971) employed an interrupted task paradigm to determine whether noninstitutionalised retarded children tended to blame themselves for apparent failure to a greater extent than non-retarded children. Children were prevented from finishing several tasks which they had begun, and were subsequently asked why the tasks were not completed. In all these studies retarded children consistently placed blame on themselves for the tasks not being completed while non-retarded children did not place blame on themselves.
The prediction that retarded children would display more maximizing behaviour than non-retarded children of the same mental age was originally advanced by Stevenson and Zigler (1958), who argued that retarded children have come to expect and settle for lower degrees of success than have children of average intellect.

In a study by Ollendick, Balla and Zigler (1971), longterm success and failure setting conditions were employed. They found that failure experiences resulted in a low expectancy of success, reflected by more maximizing behaviour, while success experiences resulted in a higher expectancy of success. Gruen, Ottinger and Ollendick (1974) concluded from their study that retarded children in regular classes (presumably being exposed to repeated failure) were found to have higher expectancies of failure than retarded children in special classes (being exposed to relatively higher levels of success).

Findings by Green and Zigler (1962), that retarded are more sensitive to cues provided by an adult than are intellectually-average children of the same mental age have led Zigler and his co-workers to the study of a general style of problem solving referred to as outerdirected (Achenbach and Weisz, 1975; Balla, Styfco and Zigler, 1971; Sanders, Zigler and Butterfield, 1968; Turnure, and Zigler, 1964; Yando and Zigler, 1971). This style has been defined as the degree to which the individual uses external cues to solve problems rather
than relying on his own cognitive resources. The outerdirectedness dimension has been reformulated by Achenbach and Zigler (1968) in terms of reliance on concrete situational cues in a problem-solving situation versus a strategy characterized by active attempts to extract abstract relations among problem elements in order to proceed from these relations to the solution of the problem.

Children of lower cognitive levels have been found to be more outerdirected (Balla, Styfco and Ziger, 1971; and Yando and Zigler, 1971). Independent of cognitive level, a child’s readiness to employ his cognitive abilities is thought to be positively related to how often the use of these abilities has resulted in success.

A study by Yando and Zigler (1971) focuses on the effects of etiology of retardation and institutionalization on the degree of outerdirectedness. They found that organically retarded children living at home were significantly more outerdirected than those living in institutions, while institutionalization had the reverse effect for familially retarded children. The noninstitutionalised organically retarded child who remains in the home faces greater expectations and consequently more failure (often exacerbated by the achievement of siblings), resulting in more outerdirectedness, than he would face if he lived in an institutional environment adjusted to his intellectual shortcomings. This work on outerdirectedness suggests
that distractibility often seen in retarded individuals reflects an outerdirected style of problem solving rather than being due to a neurological defect, to which distractibility is so often attributed.

As the child grows older and his social world widens, he comes to depend on his peer for emotional support and stimulation. His acceptance by other children in the neighbourhood, the playground and school depends largely on the personal attitudes, tolerance and compassion of their parents. The retarded child, because of his inability to compete, is frequently excluded from groups leading to further frustration and feelings of inadequacy.

Inspite of the hazards, it is possible for the vast majority of the retarded to develop personality patterns as normal as comparable with their level of mental functioning. Developmental stages must be properly handled. To function as an individual, a child needs self-help skills and the motivation to use them. To function in society, he needs adequate control over impulses, a sense of responsibility, a good conscience, a reciprocal interest in others and participating with them.

Since the most important components of personality development are evolved in the first five years of life, it is essential to provide optimal setting and conditions in which it can take place. Most often, the setting is in the home if the presence of the retarded child is not decompensating for the family.
Helping Strategies

Prior to 1950, most of the mentally retarded individuals were cared for at home or in residential schools. They were left all by themselves, were shut away in rooms or houses, or even worse, were placed in prisons, which resulted in illness or death of a person. In the 19th century, this led to the establishment of institutional residences called asylums, hospitals or colonies. These were constructed in rural areas where the residents interaction with the community members was very little. These handicapped persons did not work and were not prepared to live in the community and idled the whole day. The barrack-style accommodation provided to them was dehumanizing (Wolfensberger, 1972).

It is the responsibility of society, to the maximum possible extent, to remove the miseries of the mentally handicapped individuals. This is possible only by the dedicated efforts by a number of organizations in the direction of education and training of the mentally retarded individuals.

The mentally retarded individuals need intervention at different stages. Intervention aims at eliminating or at least reducing the limitations that prevent the individual from being an active participant in society.

Individuals with IQs between 55 to 70 can be educated and are referred to as Educable Mentally
Retarded (EMR). Category of mental retardates belonging to IQs ranging from 35-55 can be trained and are referred to as Trainable Mentally Retarded (TMR). EMR can be taught basic academic subjects, while for TMR the curriculum concentrates more on functional academic subjects, emphasizing on development of self-help and vocational skills.

Kamath (1977) reviewing institutional facilities for the mentally retarded in India, reported about the 'school for children in need of special care' and stated that several well run small schools are available for the mentally retarded.

Some of the techniques employed to teach and train the Educable and Trainable Mentally Retarded individuals are mentioned below:-

1. Special education.
2. Vocational training and rehabilitation.
   - Integrated approach
   - Multi-disciplinary approach
   - Vocational training programmes
3. Integrated education
4. Community based rehabilitation
   - Early Intervention
   - Integrated Child Development Services (ICDC)
   - Self-Help Group programme

Special Education

The imperative character of education for helping to overcome biological and social problems of the
mentally retarded for individual growth and social
development is now accepted by everyone. Investment in
the education of its youth is considered as most vital
by every nation. Education in one sense or the other
appears to be as old as the human race, though in
course of time its meaning and objectives have under­
gone certain changes. The root meaning of education is
given as bringing up or leading out or making manifest
the interest potentialilites in a person.

Education is often regarded as synonymous with
learning, as the acquired experience of any sort, be it
intellectual, emotional, or sensory motor for which
both mental and physical skills are required. Witty
(1949) has defined education as "that process which
seeks to promote the maximum development of every boy
and girl in terms of his unique nature and needs".

Special education refers to education suited to
the needs of an individual. There is a great need to
provide special education for every individual,
according to his needs and capacities, both mental and
physical.

Special education runs the gamut from preschool
early identification screening service, through school
age to vocational and recreational rehabilitation
programmes for young adults. The education of the
mentally retarded implies a systematic sequence of
specialised teaching which must include assessment,
methodology, curriculum and goal planning. All these
aspects of the system are essential to the intellectual
and maturational growth of the mentally retarded child and also to maximize the child's potential.

Hallahan and Kauffman (1978) observe that: "special education means specially designed instruction which meets the unique needs of an exceptional child". Exceptional refers to children who differ from the average to an extent that their differences warrant some type of special school, adjusted either within the classroom or in special classes. It includes both those children whose differences make them unable to perform up to the level of the average as well as those whose difference allow them to perform above the average. It includes the mentally and physically handicapped and the emotionally and socially disturbed as well as the mentally and physically superior.

A basic belief in educational philosophy is that the difference of exceptional children is only one of degree, they are more like other children than unlike them. They must be treated first of all as children who need to express their individuality and adjustments to their differences made within that framework. The label 'exceptional' is only used in order to obtain a better understanding of the child.

Exceptional children think, learn and behave like other children. Even the degree of difference is not so great that it makes the child radically different from others. It is only the difference in degree what makes the child exceptional, whether this difference is in the learning or behaving level of the child.
If such a child is to be helped to an optimum level, appropriate experiences must be provided creatively and artificially with the utilization of special skills and sound theory on the part of the teacher. It is these special skills and sound theoretical information which distinguishes the special educator from other teachers.

Teachers, in general, should have skills and information to diagnose and analyse learning problems and to devise appropriate remedial aids, tests and programmes. For this, teachers' education would have to be selective, and of a quality. Hence, in dealing with exceptional children, exceptional teachers must be available. The exceptional teachers should have the ability and skills to work with the handicapped individual of school-going age, as well as with infants and with their immediate families.

Intervention should be done from infancy onwards in order to form correct learning strategies. The special educator must take pains and probe deeply into the inter and interpersonal dynamic prevailing and devise methods and strategies to alleviate and remedy the problems. Apart from the special educator, an interdisciplinary team's service will be required to tackle various problems of a syndrome of which mental handicap is just one symptom.

There are various kinds of special educational techniques and services which cater to the requirement of various categories of exceptional children, such as
physical and occupational therapy, medical treatment, psychological assessment, educational assessment, special transportation and counselling. Special educational programmes help the exceptional child to function effectively in the society, the main aim being to make them self-sufficient.

In special education, the curriculum is most often determined by the specific levels of functioning in different areas as ascertained by assessment procedures. The level of retardation is very significant in educational terms and weighs heavily on decisions of future goal planning for the mentally handicapped individuals. Since the 1960’s, the demarcation line between mildly and moderately retarded has shifted upward toward IQ scores of 55, 60 and 65, leading to the realization that most children from standard English-speaking homes with IQ’s in the 50s cannot function in an academically oriented class. Mentally handicapped individuals have special educational needs particularly a need for teaching which accounts for their particular difficulties in new learning and in using and generalizing what they have learned. Accordingly, the teaching needs to be broken down into small steps, so that each child starts at a point where he is likely to succeed and is systematically helped to learn skills that are within his grasp, and that can be reached in a short period of time. These and similar teaching techniques are now fairly firmly established and can be learned relatively
quickly by previously untrained people; they have also been learned by parents and volunteers. But they are not easily learned from books: direct experience of working with children is essential (Mittler, 1984).

According to Snell (1988), curriculum should be recommended for teaching individuals with severe disabilities and methods to do so.

Okolo et al. (1989) examined the implementation and utilization of microcomputers in secondary special education programmes. Results indicated that almost half the teachers were not using microcomputers and special educators, administrators, and students did not view microcomputers as having a significant impact on instructional practice and programmes.

**Vocational Training and Rehabilitation**

In increasing numbers and proportions, retarded children are learning in institutions for residence in the community and are urged to remain in community settings rather than being institutionalised. Resources are increasingly brought to bear on this issue so that the mentally handicapped individuals can remain in community. For example, community-based medical services through hospitals and education through community sanction services are being increasingly provided. Owing to such support, none but the multiple, severely handicapped will need to be a resident in an institution with one exception; the child who cannot be managed because of severity of
his/her behaviour problems. For children who present behaviour problems, well documented literature already exists, for the management of these children in institutions and other settings (Cataldo, 1977). Thus, the mentally handicapped persons are now being integrated into the community.

**Integrated Approach**

Vocational training for the mentally retarded may be dovetailed with educational rehabilitation and other services. An integrated approach to services for the mentally retarded may be adopted and integrated with general education.

(i) As degree of retardation varies, vocational training programmes should be designed for each group and separately for boys and girls.

(ii) Factors relating to degree of retardation, abilities and disabilities, family, urban-rural, socio-economic and religious - cultural background may be considered while designing programmes.

(iii) Training programmes should be suited to employment/self-employment opportunities available in neighbourhood.

(iv) Kind of training to be provided should be jointly decided by parents/guardians and the agency providing training.

(v) Programmes should not only be available to them to acquire job skills but also social skills including commuting to place of work.
(vi) Vocational training for the mentally retarded should be regarded as special training like special education.

The practice of early vocational rehabilitation for the handicapped, was to provide with opportunity, with regard to the variety of training. Cobb (1972) suggested that there is a tendency to underestimate rather than overestimate the capabilities of the handicapped person. However, research studies in the past few decades have demonstrated with appropriate training procedures and techniques, the developmentally handicapped are capable of performing complex tasks.

Vocational training programmes for the handicapped adult involve a multi-disciplinary approach in the development and provision of continuum of services in all areas of daily living. Training programmes need to be structured on basic learning principles and individual needs.

The principles of normalization are to enable the handicapped to be productive and socially adaptable. In designing educational and training programmes for the retarded, one has to explore and exploit all possible sense modalities to determine their differential sensitivity to various kinds of learning situations.

In 1975, PL 94-142, the 'Education For All Handicapped Act' was passed in the U.S.A., which stated that all handicapped children should be provided with
A multi-disciplinary team is responsible for individualized educational planning for public school handicapped children. Programme for the student is developed through the individual education plan conference.

Golin and Ducanis (1981) define a multi-disciplinary team as "a functioning unit composed of individuals with varied and specialized training who coordinate their activities to provide services to children".

Jones (1978) states that the multi-disciplinary team members include school administrators, school psychologists, special educators, physicians, parents, teachers, social workers, student teachers, speech therapists, diagnosticians, physical therapists, occupational therapists, audiologists, nurse counsellors, curriculum specialists, optometrists and vocational rehabilitation counsellors. According to Golin and Ducanis (1981), the team includes "at least one teacher or other specialist with knowledge in the area of suspected disability. The child is assessed in all areas related to the suspected ability, including where appropriate health, vision, hearing, social and emotional status, general intelligence, academic performance, communicative status and motor abilities".
Vocational Training Programmes

The development of vocation training programmes depends not only on principles but also on the financial resources which the government at centre, state and community agencies can muster.

Vocation and education training to all categories of the retarded should be given by specially trained teachers. Their training should be more oriented to the understanding of the mentally retarded children than to the knowledge of trade or skill. Vocational training involves the integration of a wide range of skills and tasks in developing the individual's potential.

Integrated Education

National Policy of Education (1986) has provided remarkable opportunities for the education of the mentally handicapped individuals. Only when community identifies and accepts the mentally retarded, integrated education for them is possible.

The aim of integrated education is to educate the mentally handicapped individuals so that they too could fit in normally as members of the society.

According to a report from National Council of Educational Research & Training (1987-90), "Project Integrated Education for Disabled (PIED) was formulated to meet special needs of children with physical and intellectual disabilities to realise the goal of
education for all within from MHRD, UNICEF and the NCERT. The main aim of the project was to bring all disabled children to general schools as possible.

As per the 1991-95 perspective (NCERT, 1987-90), most of the states would be in a position to provide services to the children through multicategory training teachers and would prepare general teachers.

**Community Based Rehabilitation Programmes**

For many years the concept of normalization has been the main thrust for the developmentally handicapped in the field of rehabilitation. Previously institutionalized clients, have been trained to cope with life in as normal as possible in residential and community environments.

One of the aims of community-based service for persons with mental handicap is to maximize opportunities for participation in the mainstream of community life. While it may be true that the extent to which this participation can be achieved will vary according to the severity of an individual's handicap, other factors external to the client may be equally important (Nelson, 1978). Kastner, Reppucci and Pezzoli (1979) have pointed to the importance of the 'good will acceptance and support' of the general public to the eventual success of the community based services. Many other writers also consider community acceptance as critical to the success of the integration movement (Gottlieb & Corman, 1975; Luckey &
Community participation has wide range of application extending from consultation to a minor or major role in decision making. The levels of decision-making with which people may be involved ranges from the community setting, through the provincial departments to the national government, as well as through the political party of a country.

There are many definitions and stated positions regarding the term 'community'. Community is taken to mean a group of people who can be identified as living with and having a sense of belonging to a geographic area. Depending upon the settlement pattern and population density, a community may consist of a village or town or several non-contiguous settlements.

The existence of community organizational structures encourages large numbers of its people to be involved in the identification of priority concerns and of needed actions and in the marshalling of available resources for action. In order to activate the local involvement process within a community based education and training of mentally handicapped person must be practical and realistic and the skills applicable to the individual's functional independence in the community. The process of rehabilitation should focus on developing the trainee's potential in all areas of daily living. In broad terms the goals of training include individual development in the following skill...
areas: vocational, social, academic, residential and home-living, recreational and leisure, physical care, personal development, and social competence.

Community Based Rehabilitation programmes help the parents to learn to work together as a unit. They learn through advice, support and practical experience.

There are certain disadvantages today in using institutions. In some cases they can provide high quality technology to help the disabled, but on the other hand the rehabilitation procedure takes a long time. Many of these young disabled stay for many years, may be a lifetime, in such institutions and this divorces them from normal emotional contacts with their family and community; they develop into strangers for the people who should be closest to them. The advantage of having a family member or a friend is that this allows the disabled to stay in a natural setting within the family, and there is a greater motivation among those closely related to them than among those paid a salary for looking after them. The new approach of carrying out training in the family setting is not something that is being encouraged just so as to introduce it into the developing countries; as seen in Europe and North America too, there is a strong tendency to move away from institutions, to try to put disabled children into normal schools, and to train family members in understanding and providing rehabilitation for their disabled children rather than hiring professionals do it all the time.
Early Intervention

The role of parents in the lives of the children and rearing them cannot be over emphasized. Research has shown that the home has an enormous impact on the developing child and the school has the most important influence and that a partnership between home and school is supportive of the developing child. There is enough evidence to encourage educators to include parents as partners in the education process. Psychological research has revealed that there are many facets of child’s behaviour and personality. The school’s perception of the child is entirely different from the way home views him, as, school and home, view limited but different aspects of his personality. Some aspects of behaviour may be of more concern to parents than school. It is obvious that child in school is not the ‘whole child’ and without the help of parents, the education at school will not be for the ‘whole child’. The child centred education presumes that school knows the whole child and plans education accordingly for all aspect of the child’s personality. It is therefore essential that schools are made more responsive to the families (Saxe, 1975). This can only be realised when school is in constant touch with home in order to:

(i) Know the aspects of child not known to it and
(ii) Seek parents’ cooperation in this great venture so that education is complete and child-centred in the true sense.
Bronfenbrenner (1976) also emphasizes that "the involvement of the child's family as an active participant is critical to the success of any intervention programme. Without such family involvement any effect of intervention at least in the cognitive sphere, appears to erode fairly rapidly once the programme ends". With early intervention, centre and home-based programmes are ideal. Such concentration on one aspect only (home or centre) is not very adequate. Studies have shown that home and centre based programmes should be conducted simultaneously for meaningful progress to take place. White (1984) has also pointed out on the basis of research that "the informal education that families provide for their children makes more of an impact on their total educational development than the formal education systems".

Parent involvement in the education of children is not a new concept. Its history goes back to many centuries. Modern research and theories of Dewey, Piaget, Bloom, Erikson and many other philosophers, educationalists, and psychologists emphasised the importance of early childhood experience and education for the child's all round development, rekindling the interest in involving parents as partners in the education of their children.

Early home based education helps in preparing children for school more effectively, developing
positive attitude of parents, prevent problems due to mis-management, developing satisfying relationship.

Studies have shown the benefits in intervention programmes for children at risk and those with developmental delays, in enhancing development, improving functional abilities of the child, imparting parenting skills and prevention of secondary handicaps. Intervention programmes are home based training programmes with parent consultation at the centre and are offered through hospitals, paedriatic units, child guidance clinics and institutions for the mentally handicapped. At village level, village health workers, Anganwadis are trained to identify target children and basic intervention skills are imparted (Persha, 1989a).

A comprehension dictionary of psychological and psycho-analytical terms by English and English (1958) defines intervention as "an action by a therapist that tends to direct or influence the client behaviour during a therapy session or in general".

The basic function of an intervention programme is to facilitate or accelerate the course of normal development. It is possible for a normal child to make satisfactory progress without specialized interventions. But for the disabled, intervention programmes can help in reducing the occurrence of mental retardation or diminishing its impact on everyday life. Intervention services are provided by mental health
practitioners and others such as clergymen, social welfare agencies and workers.

Early detection of impairments and disabilities followed by appropriate interventions helps in reducing the functional limitations that would arise and lead to arrest of progression, from impairment to disability and from disability to handicap. Early intervention reduces the chances of development of secondary handicapping conditions, which may occur due to neglect and is less cost effective. The programmes are very popular and effective with pre-school children. In recent years, a number of community based intervention programmes have been developed for the benefit of the mentally handicapped individuals, which would help them to socialize and adjust well in society, become self sufficient and can contribute to the society to a great extent.

With the introduction of Integrated Child Development Service Scheme (ICDS) programme in many parts of India, another functionary called Anganwadi Worker (AWW) has been assigned the responsibility of taking care of children in 0-6 years age group. This AWW is a local woman, she has rapport with the families having young children, is also closely monitoring growth and development of children below six years of age in her village. The AWW provides a package of services to children below six years and also to pregnant and nursing mothers. The package of services includes nutritional supplement, health services...
immunisation, health check-up, referral and non-formal pre-school education and health and nutrition education to the women. On an average an Anganwadi Worker covers a population of 1,000 and as such has close contact with people in her area.

An AWW is given a three months training on various aspects of child development; care of 'at risk' children, prevention of diseases, health and nutrition education are important components in the training of Anganwadi Workers. These AWWs with their training and nature of work, are suitable functionary to identify the children having one or the other disability, at an early state. Mathur et al. (1983) utilized Anganwadi Workers to identify handicaps in children and youth.

It could be useful to have trained peripatetic teachers for a cluster of villages or in a city who shall guide and assist classroom teachers in the ordinary school or in special school, as there is a need of integrating mentally retarded individuals into the mainstream.

A developmentally disabled person can be trained for various self-help skills such as toileting, eating, dressing, and personal hygiene. Acquisition of these skills could have meaningful social consequences.

Self-Help Groups

A striking recent development in the provision of social care is an enormous growth in both the number and variety of mutual aid organizations. In recent years more and more people have come to recognize the
The self-help and mutual aid movement is a response to a number of different factors which make human services unavailable or unresponsive to those who need them. They are an alternative to extend family, close neighbourhoods, alienation and depersonalization of institutions (Gartner & Riessman, 1977). They produce substantial benefits and meet varying needs in today’s society.

Interest in mental handicap stems not only from the realm of mental health professionals but also from among parents, educationists, missionaries, voluntary and welfare agencies. The magnitude of the problem of mental retardation, in India is high with a prevalence rate of 20-30 per thousand, when compared to the available training institutions and qualified personnel. As there is a shortage of these limited facilities, attempts at involving lesser qualified individuals has started (Verma 1985).

Utilizing parents as therapeutic aids in the care of their handicapped child is part of an ongoing program at Vellore as reported by Date (1985). This program involves the family, wherein children with varying degrees of mental retardation are admitted along with their parents for a period of 3-9 months.
Parents of mentally retarded children feel isolated from society and require guidance regarding management and education of their children. There is also a need to share parental experiences with each other. Several reasons prevent such interaction such as scattering of the handicapped children in society, social stigma, lack of understanding by unaffected parents, and differences in perception between rural and urban parents. Hence there is a need for mutual support for parents and this support can be generated through self-help programme.

A number of definitions of self-help groups have been formulated. Gartner and Riessman (1977) added a list of defining attributes. (a) Self-help groups always involve face-to-face interactions, (b) the origin of self-help groups is usually spontaneous (not set up by some outside group), (c) personal participation is an extremely important ingredient, as bureaucratization is the enemy of the self-help organization, (d) the members agree on and engage in some action, (e) typically, the groups start from a condition of powerlessness, (f) the groups fill needs for a reference group, a point of connection and identification with others, a base for activity and a source of ego reinforcement.

educational and mental health services for the population and is highly cost effective.

National Policy on Mental Handicap (1987) reported that the self-help group movement is an expression of the potentials for helping each other among families with a mentally handicapped individual. This movement allows for services to develop within homes and in small communities without excessive amounts of professional inputs.

Intervention through self-group programme, cares and provides training and education to all levels of mentally handicapped persons, according to their individual rehabilitation plans. Services are delivered to urban and rural population. Parents involve directly in the training and education of their mentally handicapped children.