Chapter - 1

INTRODUCTION
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One of the important goals of civilized societies is to ensure that disadvantaged groups have opportunities to rise above their problems, which may be socio-cultural in genesis or rooted in the individual's biological or psychological entity. This is specially important in situations where we are dealing with children who are born with some characteristic that places them in the category of differently abled or challenged as this is a stage where some improvement may be achieved and their total life may be bettered. This is not merely an altruistic and compassionate gesture on the part of society, it would also contribute to society's development. Further, it is the right of the child to receive this special care.

In recent years, the area of special education has emerged as part of this concern. Implicit in the term 'special education' is the attitude and belief that those who are differently abled are educable. First, just as methods of education for the general population vary in terms of needs and potential of the target group (education at kindergarten, secondary and university level follows different methods), education for differently abled merely needs to be suited to them. Undoubtedly, much has been achieved in the area and awareness in this sphere has led to opening of a
large number of institutes and centres catering to the education of this particular group of society. Some of these have been opened by professionals, some by philanthropic minded persons who wish to do something for their fellow creatures. It is important that social scientists must participate in this endeavour. They can play an important role in helping to evaluate various programmes, examine their efficacy in achievement of objectives, study factors like role of parental participation and expectations in success or failure of the programme. Constructive suggestions in this sphere can be immensely useful. Since in India it is only during the last one or two decades that the movement has gained momentum, such studies would be even more useful because they would help in giving direction to the system on proper lines.

The present researcher has therefore selected for study the topic "Assessing the objectives and effectiveness of psychological skill training programmes for differently abled children". This work will help to bring to the fore exactly what objectives these programmes are trying to achieve, what exactly they are doing, parental expectations from the programmes and spheres in which success is observed. Ultimately it is hoped that constructive suggestions will accrue.

A key concept relating to our work is the concept of psychological skill training. According to Goldstein (1981) psychological skill training is the "planned, systematic teaching of the specific behaviours needed and consciously desired by the individual in order to function in an effective and satisfying manner over an extended
period of time, in a broad array of positive, negative, and neutral interpersonal contexts”.

It is important that the behaviour changes towards which the training is oriented be needed and consciously desired by the trainee. In the case of small children, there may not be direct motivation on the part of the trainee, here motivated parents and family help to percolate and induce positive attitudes in the child.

The goals of psychological skills training, optimally, are both effectiveness and satisfaction. Effectiveness pertains to the impact on others, deriving from one’s newly enhanced skill level. Satisfaction, is the inner consequence of overtly effective skill behaviour. The skill training targets which constitute the actual content of a psychological skills training program are optimally both diverse and numerous, and should include both interpersonal and personal skills. Interpersonal skills are the competencies that individuals must bring to bear in their interactions with other individuals or groups of individuals. Communication skills, leadership skills, relationship skills, and conflict management skills are a few examples. Personal skills are emotional, cognitive, observational, or skills that relate to practical aspects of daily living in work, school, or home environments. They include self-control, decision making, goal setting, preparing for stressful conversations, and setting problem priorities.

Finally, a comprehensive definition of psychological skills training must address not only matters of skills content but also teaching
framework of social learning theory (Bandura, 1965a; Bandur Walters, 1963) demonstrates that virtually all learning phenomena resulting from direct experiences can occur on a vicarious basis through observation of other person's behaviour and its consequences for them. Modelling procedures are therefore, ideally suited for effective diverse outcomes including elimination of behavioural deficits, reduction of excessive fears and inhibitions, transmission of self regulating system, and social facilitation of behavioural patterns on a group-wide scale.

From the viewpoint of imparting education to children who are mentally challenged, modelling has great significance. Children as a whole respond better when learning is conducted through concrete symbols rather than abstract thought mode, it is part of their cognitive developmental level. For children who have intellectual deficits, it has an even greater relevance. Through modelling, new response patterns that did not exist earlier may be taught. Further, observation of modelled actions and their consequence to the performer may strengthen or weaken inhibitory responses. It therefore becomes a very viable method for psychological skills training in children with deficits:

ROLE PLAYING

The primary goal of role playing in structured learning is to encourage realistic behavioural rehearsal; a trainee's statements about his individual difficulties using the skill being taught can often develop into material for his or her first role play. To enhance the realism of the portrayal, the structured learning trainer should have the trainee (now
the main actor) choose a second trainee (coactor) to play the role of the
significant other person in his life who is relevant to the skill
programme. Performance feedback and situation's which helps to transfer
training are given special emphasis.

Thus a programme of psychological skill training for
disadvantaged should try to impart appropriate psychological and social
skill through appropriate methods.

To understand programmes of educating and imparting skills to
the differently abled in a holistic perspective, a brief historical scenario
of special education is being given in the paragraphs that follow -

1. Special Education in Britain

In Britain the practice of caring for the disabled has deep roots.
For example, attempts at the redemption of delinquent and physically ill
children who had been sold in pledge to their employees were made as
early as the beginning of 19th century. Identification and education
relating to the disabled followed this initial process of sensitisation to
the problem of disadvantaged.

In 1870 with the advent of universal elementary education in
Britain, children with physical and intellectual disability, malnutritions
and debility began to be noticed within the ordinary schools. 1895
onwards schools for what were termed 'defective children' were
established, these children being defined as having imperfection of body
or physiognomy, abnormal neurological responses, poor physical
condition due to illness and poor nutrition, or mental dullness. Other categories were 'imbeciles', children who due to mental defects, were unable to be educated and become self-supporting and the 'feeble minded' children who were unable to receive ordinary education but who were considered to be above imbecile standard. The 1944 Education Act was an important event on in the history of education in England and Wales. As a result of this Act, a system of special schools was set up, particularly in areas of high urban population such as London. Parents came to demand a greater influence in deciding how and where their children should be educated. The 1980 Education Act obliged such schools to publish detailed information on their general school policy, disciplines and examination results. School governing bodies were to include a proportion of parent governors.

Later, the 1981 Education Act brought into focus concepts which helped to evolve a more systematic and scientific attitude towards special education and psychological skill training. The salient concepts highlighted by this Act were:

1. The concept of special education needs.
3. Identification and assessments of children needing special education.

The 1981 Education Act marked a milestone in special education. It give a new perspective beneficial to concerned child,
parents and teachers. It is also appropriate to quote the Education Reform Act 1988, National Curriculum 1989. The important aspects of this national curriculum was that it recognized four key stages, each of which has a certain number of levels in a series of attaining targets. While explaining how normal children will proceed from stage one to stage four, it recognized that children with disability may not be pushed to the higher stage but allowed to remain at particular stage. It also emphasizes that disabled children should have access to a full curriculum. This aspect was criticized as being a great pressure to the children but since it merely emphasized giving opportunity and creating facilities for access without compulsion or insistence to reach the stage, the question of pressure did not arise.

2. Special Education in USA

In USA, those children who were usually referred to in Britain as handicapped were called 'exceptional' (a term which includes gifted children) but in practice there was no salutary practice for the mentally handicapped before 1800. The mentally retarded before 1800 were regarded, as they were elsewhere as ineducable and were hidden away or left to their own devices as was the village idiot in Britain. The most dramatic progress was made in 1960's and 1970's regarding educational provision, research and legislation on behalf of exceptional children. In the 1960s, provision was made for graduate fellowships for training people for a career in teaching retarded children (Public Law 85-926) and for preparation of teachers for the deaf (Public Law 87-276).
Section 504 of the vocational Rehabilitation Act of 1973 has been of outstanding importance for special education.

Section 504 of the Vocational Rehabilitation Act is similar in design and application to the Civil Rights Act of 1984. The 504 Regulation attacks the discrimination, the demeaning practices and the injustices that have afflicted the nation's handicapped citizens. It reflects the recognition of the congress that most handicapped persons can lead proud and productive lives, despite their disabilities. Section 504 led to the historic enactment of PL 94-142 which promised specific educational opportunities for handicapped children. PL 94-142 has had a profound effect on the service providers. There is a wide range of provisions in the Act and it includes some of the following key features.

i) Due process: This gives parents safeguards in crucial matters of assessment and educational placements, as well as consent for testing.

ii) Least restrictive environment: This requirement means that children with disabilities are to be placed with non-disabled children as far as practicable.

iii) Non-discriminatory assessment: The object of this provision is to ensure that appropriate and culture fair tests are administered for placement purposes.

iv) Individualization: The main feature of this provision is that children in receipt of special education must be working to an individual
programme based on the finding of an appropriate assessment and that this be subject to review.

(v) Confidentiality: This refers to safeguards about access to children's records and the protection of confidentiality.

In 1983 President Reagan proclaimed that America would celebrate a Decade of Disabled Persons during 1983 to 1992. The following goals with reference to the disabled were set for the decade.

1. To expand their educational opportunities.
2. To improve access to housing, buildings and transportation.
3. To expand employment opportunities for the disabled.
4. To expand their participation in recreation, social, religions and cultural activities.
5. To expand and strengthen their rehabilitation programmes and facilities.
6. To reduce the incidence of major disabling conditions through biomedical research.
7. To reduce the overall incidence of disability by expanded accident and disease prevention.
8. To minimize the effects of disability through the increased application of technology, and
9. To expand the international exchange of information and experience to benefit all persons with disabilities.
3. The Indian Scenario

The first Home which was opened specifically for the care and training of the mentally retarded was the Home for Mentally Deficient children established in Bombay by the children's Aid Society in 1941 as a direct outcome of the Children's Act.

This was followed by the "School for children in need of special care" which was started by a parent in 1944 in Bombay. In the fifties, eleven more schools were started in various parts of the country. The sixties showed a tremendous spurt in providing services for the retarded. There were 51 institution in 1966 and this reached a total of 91, in 1973. This tempo has gradually increased and there are more than 150 institutions all over the country which offer services for the retarded either exclusively or in conjunction with other handicapping conditions. Earlier services were aimed at improving self care activities and primary education, gradually institution, have started including sheltered workshop programmes which is an attempt to habilitate the retarded person. Institutional facilities in India are found in certain pockets and are not distributed evenly in the entire country. There is also an urban bias as almost all of them are in urban areas.

Maharashtra, Delhi, Chandigarh, Karnataka, Gujarat and Tamil Nadu lead in providing services for the mentally retarded. Maharashtra has nearly a fifth of all mental retardation services available in the country. A small nucleus of services with good signs future growth are to seen in Kerala.
In 4 states of Assam, Haryana, Jammu & Kashmir and Orissa services for the mentally retarded are conspicuous by their absence. Smaller states like Arunachal Pradesh, Manipur, Meghalaya, Nagaland, Mizoram, Sikkim and Tripura also show a complete lack of services. Even where services exist, desired parameters are not followed. It is necessary to have multidisciplinary approach and services provided should include paediatrician, clinical psychologist, psychiatrist, neurologist, occupational therapist, speech therapist, physiotherapist etc. If systematisation of knowledge obtained by care givers to the disabled is done it would be of immense help in planning and conducting better and more effective programmes. Similarly, the services for the counselling of the parents of the handicapped are grossly inadequate.

It is relevant to state here that the state and community attitudes play an important role. The fact that in the whole country 28 institution for the mentally retarded are being supported or run by the state and or the central government is revealing. The rest of the institutes are run by non-governmental and other voluntary agencies.

The government of India has also accepted its responsibility towards ameliorating the lot of the disabled section of the society and formulated from time to time various schemes and programmes for their welfare and rehabilitation, thereby following the guidelines and norms of the UN. The observance of the year 1981 as independent year of disabled person and the year 1993 as the SAARC Year of Disabled Person is a proof of this. The most important outcome of the observance
of the IYDP (1981) was the adoption of the world programme of Action concerning Disabled Persons (1983-1992). The world programme of action concerning disabled persons reinforced that all disabled persons are entitled to the same rights as other citizens. Broadly these rights include the right to education and training, employment, recreation, cultural activities, religion and sports through full access to information and the physical environment.

**IMPORTANT CONSIDERATIONS IN CONDUCT OF PSYCHOLOGICAL SKILL TRAINING PROGRAMME**

In order to conduct a programme for developing appropriate skills in differently abled children, an important step often neglected, is evaluation and assessment.

Evaluation refers to the procedure used by appropriate qualified personnel to determine a child's physical and sensory, language and speech, psychological and self-help skills. The term assessment refers to the ongoing procedures used throughout the period of a child's need for special education with the purpose of identifying -

a) The child's unique needs  
b) The family's strengths and needs related to development of the child.  
c) The nature and extent of early intervention services that are needed by the child and the family to meet the needs determined in the evaluation process (Fewell, 1991).
Assessment is important because the status and needs of the child may change as a consequence of the intervention he/she is undergoing or any other factor which may be operative.

Stages in Assessment Process

Bagnato, Neisworth, and Munson (1989) offer a model that provides a process for making these decisions linking more clearly evaluation and assessment to intervention. The steps or stages in this model are 1) Screen/identify, 2) assess/link, 3) programme/intervention and (4) monitor/evaluate. Appropriate assessment measures must be used to accomplish each function but the steps are interrelated.

Screening

i) examines a child's skills for a broad look at overall functioning.

ii) looks for signs of developmental concern in patterns of peaks and lows.

iii) identifies areas that are in need of closer examinations.

Assessment and Linkage

i) increases the magnification and provide more attention to detail.

ii) provides a comprehensive and detailed analysis of the child's capabilities that establish the goals for intervention.

iii) yields a score or product, but more important it gathers qualitative information about how the child earned that score.

iv) produces a profile of strengths and limitations and suggests the best way to achieve desired targets.
Programming and Intervention

i) involves the planning of individualised curricular activities and adaptive strategies for teaching.

ii) analyses the child's skills into subskills that can be taught more easily.

iii) establishes the objectives as well as the particular instructional strategies for intervention.

Evaluation of Progress

i) takes a wide view as well as pays attention to details.

ii) uses repeated assessment to provide information on gains across time.

iii) examines the child's progress in specific curricular areas in order to determine programme effectiveness and to allow for subsequent modifications as indicated.

iv) determines programme effectiveness from the perspective of family needs and expectations.

Methods for obtaining information

Assessment information may be gathered by formal and informal observation of the child. The information needs to be obtained from the family members and teachers as well as any other professionals who are involved with the child. Bailey and Wolery (1984) identify three broad methods to obtain information about children. i) direct testing, ii) naturalistic observations, iii) interviews.
Direct Testing

In direct testing a set of standard tasks is presented using predetermined administration procedure and then interpreted in a prescribed or standard manner. Direct testing may employ norm referenced and/or curriculum referenced tools. The consistency in administering and scoring allows for communication and meaningful interpretation of test results. A variety of standardized tests have been developed for different purposes. The decision to use a certain test should be consistent with the original purpose of the instrument.

Naturalistic Observation

It is the recording of behaviour as it occurs in a variety of settings, either natural or contrived. Bailey and Wolery (1984) define observation as "... a means of discerning what behaving behaviours are performed by children, under what conditions these behaviours appear and which stimuli are related to those behaviours". Various methods of observational recording are available, including commercially published checklists, informal amendotal notes and so on.

Direct observation complements direct testing throughout the assessment process from initial screening to placement and programming decisions. Bailey and Wolery (1984, p. 67) summarise the rationale for direct observation in assessment.

Direct observation can:

1. Assess difficult-to-test skills.
2. Validate information collected from other measurement strategies.
3. Extend assessment activities to other settings and routine.
4. Identify functional relationship between the child's behaviour and environmental stimuli.
5. Provide ongoing assessment of programme effectiveness.

Family Interview

Active family interview is an essential component in early childhood assessment. The role of the family in the assessment process is a central feature of P.L. 99-457. Family members are an integral part of the assessment team and have a voice in all decision making. The family interview sets the tone of working relationships for all future interactions and should be conducted by a skilled professional.

It is thus clear that assessment should be multi-dimensional and not based on a single technique. Since more of the techniques by themselves are sufficient each has its disadvantages, multidimensional approach is essential.

Since assessment is a continuous process, and at periodic intervals the advantages which the child has assimilated have to be measured, the assessment must necessarily be curriculum based.

Curriculum-based assessment allows the early interventionist to track a child's performance on specific programme objectives and compare current performance to past performance, thus monitoring the child's progress. The curriculum based assessment provides specific developmental objectives that make up the instructional curriculum for
the child. The teacher determines if the child has acquired the skills addressed in the curriculum.

Together with assessment and evaluation of the individual child, evaluation of programme is also important. Program evaluation is the process of determining the progress of children and the efficacy of the total intervention program in an objective and systematic way. The quality of the overall intervention programme together with its impact on the children and families it serves must be evaluated and documented. The purpose of an evaluation is to determine the programme's ability to achieve its stated goals. If the programme is not accomplishing what it started out to do, changes can be made to improve its effectiveness.

It is important to make judgements about three aspects of a programme (i) overall child outcomes (2) the efficiency and quality of programme operations (e.g., staff performance), and (3) consumer satisfaction (Peterson, 1987).

Child Outcomes

The main reason to evaluate a programme is to show that the child is progressing as a result of special services. The evaluation documents overall child outcomes by assessing, the impact of the programme is having on children and families. Programmes need to demonstrate that the intervention it is providing is effective. It is important to verify that the gains and progress are greater than would be attributable to maturation alone, that is, if the child and family were not participants in the program.
Efficiency and Quality of Programme Operations

Programmes need to provide evidence that money is being well spent. Positive programme evaluation data justifies request for funds. These data also provide the basis for improvements and change in services for the children and families.

Consumer Satisfaction

What do parents of children enrolled think about the programme? Do they feel the programme is beneficial to their children? Ask caregivers to rate the programme, the services they received, and the way in which the staff deals with them and their children (Peterson, 1987).

Obtaining feedback from individuals who are intrinsic and extrinsic to the programme is important when performing an evaluation, internal feedback should be from participants and staff working in a programme and external feedback from individuals who are not directly associated with the programme.

In many states of USA and other developed nations legislation mandates yearly reviews for individual education plan (IEP) and semiannual review for individualized family service plans (IFEP). Even when there is no legal mandate, in the interest of the learner participating in the programme, evaluation reviews should be done. These are essential monitoring, and if necessary for modification of existing programme.
The following evaluation frameworks are popular. Destefano, Howe, Horn and Smith (1991) have suggested a model for evaluation of skill training programme for children. It consists of the following components on which the assessment is done:

1) Curriculum programming which assesses the reference of the programme in terms of the child's need, family environment, curriculum contents.

2) Organization of the learning environment in which factors like setting, space, size of the group etc. are considered.

3) Social skill under which it is examined whether skills needed for every day living interaction and social adjustment have been taught in an age appropriate and person-appropriate manner.

4) Using support service is another criterion on which programme is evaluated. This is an important feature because without linking the programme to agencies which fund or which help in community welfare, the programme cannot be fully successful.

5) Family involvement is an important consideration because participations of parents and siblings is essential. This component evaluates whether parents have been given guidance and proper inputs as to how they can prove of maximum behalf in the programme.

6) Transition, which evaluates whether the child can be involved in some vocational training or some others new setting. Coordinated efforts of parents and institution are assessed.
Details of the programme can be seen in Appendix 'B'.

The model presented by Bricker 1986 has the evaluation process spread across a time frame suggesting a three-level framework, which provides a useful system for measuring child-family change and programme impact.

Level 1: Measuring progress toward weekly training targets

Specific data collection formats that relate to the child's objectives are devised to collect data on social interactions, language, and so on. Collection of weekly information is done and then systematic comparison with data from other weeks is made, plotted on individual graphs to show percentage, proportion, frequency or rate of change over time.

Level 2: Quarterly child/family progress

Data on child and family progress towards relatively long-range goals and objectives, is collected and analysed in terms of total or subgroup scores if they are to be used in programme evaluation. Bricker (1986) suggest that published instruments with norms and/or reliability and validity information are the most useful.

To analyse progress toward long-range goals, the predicted progress of each child and the group as a whole need to be compared to actual progress. Pretest data can be compared to post-test data.

Level 3: Programme Impact; Norm-referenced and/or criterian referenced tests

It is very useful for assessing the total impact of the programme on the children. Norm-referenced and/or criterian-based tests generally are more desirable.
The following domains are assessed - (i) communication, (ii) social, (iii) cognitive, (iv) gross motor.

When evaluating a programme, it is important to have a realistic idea of the nature of disorder and the extent to which improvement is expected. Without this perspective, the gains achieved may appear to be meaningless, whereas in some conditions, minor improvements only may be achievable and these may affect the individual positively.

Let us take the example of mental retardation which is a very frequently occurring condition and a major number of children in various institutions fall under this category.

The American Association on Mental Deficiency (AAMD) has defined mental retardation as "significantly subaverage general intellectual functioning existing concurrently with deficits in adaptive behaviour, and manifested during the developmental period". The American Psychiatric Association has adopted the same definitional approach for its latest classification, DSM IV, listing mental retardation as an Axis II developmental disorder beginning before the age of 18. American association on mental deficiency and the American Psychiatric Association classification recognized four levels of retarded mental development, as follows:

1. Mild Mental retardation (IQ 52-67). Mildly retarded individuals constitute by far the largest number of those labelled mentally retarded. People in this group are considered 'educable' and their intellectual levels as adults are comparable with those of average 8-11 years old children.
2. Moderate Mental retardation (IQ 36-51). Moderately retarded individuals are likely to fall in the educational category of 'trainable', which means that they are presumed to be able to master certain routine skills, such as cooking or minor janitorial work if provided specialized instruction in these activities.

3. Severe mental retardation (IQ 20-35). Severely retarded individuals are sometimes referred to as 'dependent retarded'. Among these individuals, motor and speech developments are severely retarded, and sensory defects and motor handicaps are common. They can develop limited levels of personal hygiene and self-help skills, which somewhat lessen their dependence, but they are always dependent on others for care, thus usually requiring institutionalization.

4. Profound Mental retardation (IQ under 20): The term life support retarded is sometimes used to refer to profoundly retarded individuals. Most of these people are severely deficient in adaptive behaviour and unable to master any but the simplest tasks. Useful speech, if it develops at all, is rudimentary. Severe physical deformities, central nervous system pathology, and retarded growth are typical; convulsive seizures, mutism, deafness, and other physical anomalies are also common. These individuals must remain in custodial care all their lives. They tend, however, to have poor health and low resistance to disease and thus a short life expectancy.

Sometimes organic factors may play a role in mental retardation. In these cases, retardation is usually at least moderate, and it
is often severe. Profound retardation, fortunately rare, always includes obvious organic impairment, main being genetic chromosomal factors, infection and toxic agents, prematurity and trauma, malnutrition and other biological factors.

i) Genetic chromosomal factors

Genetic and chromosomal factors play a very clear role in the etiology of certain types of mental retardation, such as down syndrome or a condition known as FragileX, a constriction or breaking of the end portion of the long arm of the X sex chromosome. For certain other conditions of mild retardation, genetic and sociocultural factors in conjunction with each other are felt to be important.

ii) Infection and toxic agents

Mental retardation may be associated with a wide range of conditions due to infection. If a pregnant woman has syphilis or gets German measles, her child may suffer brain damage. Brain damage may also result from infections occurring after birth, such as viral encephalitis, toxic agents, such as carbon monoxide and lead, may cause brain damage during fetal development or after birth. Immunological agents, such as antitetanus serum or typhoid vaccines may lead to brain damage. Similarly, certain drugs, including an excess of alcohol, taken by a pregnant woman may lead to congenital malformation, an overdose of drugs administered to an infant may result in toxicity and brain damage. Brain damage can result from incompatibility in blood types between
mother and fetus conditions known as Rh, or ABO, system incompatibility.

iii) Prematurity and Trauma (physical injury)

Children born prematurely and weighing less than about 5 pounds at birth have a high incidence of neurological disorders and often mental retardation. Physical injury at birth can also result in retardation. Hypoxia—lack of sufficient oxygen to the brain stemming from delayed breathing or other causes is another type of birth trauma that may damage the brain.

iv) Malnutrition and other biological factors

Deficiencies in protein and other essential nutrients during early development can result in irreversible physical and mental damage conditions which comes under the category of organic retardation is Down syndrome which was first described by Langdon Down in 1866. Down syndrome is the most common of the clinical conditions associated with moderate and severe mental retardation. Down syndrome is a condition which "has life-long implications for physical appearance, intellectual achievement and general functioning" (Golden, Davis, 1974). Down syndrome children have eyes which appear almond shaped, and the skin of the eyelids tends to be abnormally thick. The face and nose are often flat and broad, as it is the back of the head. The tongue, which seems too large for the mouth, may show deep fissures. The iris of the eye is frequently speckled. The neck is often short and broad, as are the hands, which tend to have increases across the palms. The fingers are
stubby, and the little finger is often more noticeably curved than the other fingers. Children with Down syndrome are usually able to learn self-help skills, acceptable social behaviour, and routine manual skills that enable them to be of assistance in a family or institutional setting. Research has also suggested that the intellectual defect in Down syndrome may not be consistent across various abilities. Down syndrome children tend to remain relatively unimpaired in their appreciation of spatial relationship and in visual-motor coordination they show their greatest deficits in verbal and language related skills (Mahoney, Glovers & Finger, 1981; Silverstein et al. 1982).

Earlier it was believed that family heredity played a major role in Down syndrome. This was not supported by research, nor was the contention that glandular imbalance be a causative factor. In 1959, the French scientists Lejeune, Turpin and Gauthier found 47 chromosomes instead of the usual 46, in several Down syndrome cases. A trisomy of chromosome 21 (an error of zygosis in which chromosome 21 is represented in triplicate rather than normal pain) has now been identified. It has also been found that advancing age in either parent, particularly maternal, increases the risk of trisomy 21 anomaly. There is no known effective treatment. It becomes all the more imperative that such children must be given special education to make them as self-dependent as possible.

In the light of the above, it is clear that in the case of severe and profound mental retardation or Down's syndrome there is a certain level at which alleviation will be possible.
Another frequently observed condition amongst children which places them at a disadvantage is autism. It was described by Kanner (1943). According to estimates it afflicts about 4 children in 10,000 and occurs about four or five time more frequently among boys than girls (Schribman & Koegel, 1975; Ritvo, Freeman, Pingree and others 1989; Steffenburg and Gillberg, 1986; Werry, 1979).

The features and characteristics of autism suggested by case summaries are:

1. Severe impairment in emotional relationship.
2. Apparent unawareness of personal identity.
3. Preoccupation with particular objects and failure to use them in an appropriate way.
4. Marked resistance to change in environment.
5. Abnormal perceptual responses including visual and auditory voidness.
6. Acute and apparently illogical anxiety.
7. Failure to develop speech sometimes manifesting conditions like echolalia.
8. Mannerisms and bizarre movements.
9. General retardation with islands of normal or exceptional intellectual ability or skill.

No brain pathology has been delineated in infant or childhood autism. Because it does not in general, appear to run in families, it cannot be attributed directly to a hereditary defect. However, that
defective genes or damage from radiation or other conditions during prenatal development may play a role in the etiologic picture can not be totally ruled out. It seems that the disorder we call autism involves both multiple kinds of (Goodman, 1989) and multiple etiologic pathways (Gillberg, 1990).

In his early studies of childhood autism, Kanner (1943) concluded that an innate disorder in a child is exacerbated by a cold and unresponsive mother, the first factor resulting in social withdrawl and the second tending to maintain this isolation. Much remains to be learned about the etiology of childhood autism. It appears most reasonable to suppose, however that this disorder normally begins with an inborn defect or defect in brain functioning regardless of what other causal factors may subsequently become involved.

Medical treatment of autistic children has often been tried but has not proven effective (Rutters, 1985). The drugs most often used in the treatment of autism is Halaperidol but the data on its effectiveness do not warrant use unless child's behaviour is unmanageable by other means (Sloman, 1991).

Methods of treatment which are non-medical and emphasise psychological processes have been found effective. Bettelheith (1967, 1969, 1974), at the arthogenic school of the University of Chicago, reported some success in treating autistic children with a program of warm, loving acceptance accompanied by reinforcement procedures. Marchant and her associates (1974) in England have reported
improvement using a method for introducing "graded change" into the environment of autistic childrens thus tending to shift their behaviour gradually from self-defeating to growth oriented activities.

Another common approach used is structural therapy. In this approach the environment is structured to provide spontaneous physical and verbal stimulation in a playful and game like manner. The goal of this approach is to increase the amount and variety of stimulus for these children, gradually making them more aware of themselves and more related to their environment.

Behaviour therapy is an institutional setting has also been used successfully particularly in the elimination of self injurious behaviour, the mastery of the fundamentals of social behaviour, and the development of some language skills (Lovaas, 1977; Lovaas, Schaeffer & Simmons, 1974; Williams, Koegel & Egel, 1981).

One important factor limiting treatment success is the problems autistic children experience in generalizing behaviour outside the treatment context (Handleman, Gill & Alessandri, 1988). Children with severe developmental disabilities do not transfer skills across situations very well. Consequently, learned behaviour in one situation does not appear to help them meet challenges in others. This important component needs to be addressed if training or treatment programmes are to be successful. Even with intensive long-term care in a clinical facility, where gratifying improvements may be brought about in specific behaviours, children are a long way from becoming "normal". Gillberg
and Schaumann (1981) have noted that some autistic children make substantial improvement during childhood, only to deteriorate, showing symptom aggravation, at the onset of puberty. Less than one-fourth of the autistic children who receive treatment appear to attain even marginal adjustment in later life.

On the basis of the above discussion it is clear that serious problems confront individuals who are mentally retarded or autistic. Further, in view of the observation that improvement is possible it is important to explore ways and means which would help to achieve optimal possible improvement. It is therefore imperative that ongoing programmes should be evaluated and on the basis of findings should be modified and enriched. This would be an important contribution of society towards a segment which deserves attention and care.