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Personality Development

How do human become persons and develop the personality they have and how does this determine their later behaviour ? These two terms are difficult to differentiate. Personality infact is behaviour. When we talk of personality we generally ask a few questions to ourselves. Is he pleasant or unpleasant ? Does he make us happy and comfortable to be with him ? Is he sincere or two faced ? These qualities make one unique and each person is different from others. Not only these qualities are personal they are also social as they manifest themselves in interaction with others. Hence, personality is that which characterises an individual and determines his unique adaptation to the environment.

Philosophers have interested themselves for a very long time for knowing human personality. Plato in his Republic distinguished three aspects of personality : intellect, emotion, and will. All these three aspects are integrated in a given act or situation.

The study of personality might take a number of forms depending upon the interest of the writer or investigator *i.e.* dynamics of personality, development of personality from birth to maturity. There are two basic approaches to the study of human personality : idiographic and nomothetic. The aim of the ideographic approach is to understand the unique qualities of one individual person and aim of the nomothetic approach is to arrive at universally acceptable laws applicable to all personalities.

In the study of child psychology we are primarily interested in five questions about of personality among children growth of personality among children.

   (*a*) What actually happens when a child grows physically and psychologically ?

(b) How do changes come about ?

(c) Why do they occur ?

(d) When do they occur ?

(e) What are the roles of family, school, peer group etc. on personality ?

The child reacts to a variety of objects, events and persons. He or she does not have innate tendencies to love, to hate, to fear, to approach or to avoid people. The child predominantly is a biological organism interested more physical comforts and wellbeing. He gradually learns the social manners, etiquettes, and acceptable patterns of behaviour. He wants to be socialised and this process of socialisation begins at home. The experience with the human beings during the first year of life lays the foundation for his future attitudes towards them. His relationships with the mother in most cases form the nucleus for his later behaviour towards others.

FIRST THREE YEARS OF LIFE

A few spontaneous responses appear which are predominantly meant for his survival such as : vocalisation, sucking, smile, cry etc. Around 3rd/4th month he begins to manipulate his finger, his mother's hair, and toys. Most of the child's time is spent by looking at and scanning the mother's face. The infant babbles, the mother smiles and vocalises back. Circulatory babbling responses increase with the growth of the child. Smiling appears after two months of age and is mostly directed towards the mother; crying acts as an effective method or signal to the mother either to retrieve or attend to her baby. When the mother comes, the child feels relaxed by sitting in the lap of the mother. Most babies such milk from the mother and watch the mother's face. But babies cling to their mother and scan her face even when sucking milk from the milk bottle. Hence early behaviours of the infant are directed to the biological mother. In Jung's terms the mother is liked because she is food providing and nourshing. This contact of the child with the mother influences his behaviour slowly but surely. The child becomes attached to her.

Attachment

In recent times this behaviour between the child and the mother is being explained in terms of the concept of attachment. Attachment develops because of the conditioning of positive reward value of the mother. The child looks for the mother whenever the child feels hungry and or in need of any kind of nurturance. If instead of rewarding, nurturing, holding the baby in comfortable position, the mother shows an attitude of indifference or is callous, cold or she handles the child very roughly, the mother consequently becomes a source of anxiety and discomfort. In such situations, children withdraw from the mother. Attachment or withdrawal are learned behaviours observed in children.

Several experiments have been reported in the literature which explain the nature of social learning in children. Harlow is the pioneer researcher in this field. He and his colleagues placed infant monkeys with mother monkeys constructed out of wire mesh. Some of these infants were fed from a bottle attached to the chest of a plain wire mesh mother. The remaining ones were fed from the wire mesh mother covered with terrycloth. It was found that the infants would go to the wire mother when hungry, suck the milk from the bottle until satisfied and to the terry cloth mother for most of the day. When a spider was placed in the cage the infant monkeys ran to the mother, than to the wire mesh mother. On several experiments Harlow observed these behaviours.

The conclusions emerging from Harlow's studies were : For normal development the young monkey or the human baby needs some interaction with an object to which he can cling, scan or vocalise. The one year old baby runs to the mother and hides his face in her clothes if a strange person enters the house. Since the mother elicits these responses, she is likely to becomes the object of attachment for the young baby and the baby is attached. Reduction of discomfort and the supply of pleasant sensations become the primary source of attachments.

Soon these attachment responses are generalised to other people. The infant develops a fairly articulated schemata of the caretaker's form and voice. Whiting and Child (1953) observed that the monkeys who were reared by a human being for the first three weeks, and then isolated for the rest of the first year, spent more time with the animal worlds them the monkeys reared by a human being. In the animal world also the monkeys reared by their mothers spend most of their time approaching another monkey. On the other hand, the monkeys reared in isolation for the first six months remained aloof approaching neither monkey or man.

Rheingold (1956) demonstrated the effects of early isolation using human infants. Sixteen, six months old babies who lived in an institution were divided into two groups. One group was reared by a good substitute mother and the other half was reared by different persons every day in a routine fashion. Babies with the substitute mother received greater care. A social responsiveness test was given to these children. The children expressed their reactions to a stranger experimenter, and examiner who come from another test. The infants brought up by substitue mother appeared more responsive to all these persons than the other group reared by different persons each day. The conclusion that appears from these investigations is, social responsiveness increases with the reciprocal and playful social stimulation that occurs between the child and the adult or the mother substitute.

In addition to social responsiveness, the child acquires a mental image of the person who is the object of attachment. Consequently the child develops a tendency to react with fear and avoid people who differ from the caretaker. However, with continued exposure to the strange object the period of anxiety passes away.

Gewirtz (1965) observed the development of smiling response as an indicator of attachment and social learning in the first year of life. He observed three groups of children in Israel who were reared under three different conditions. The institutionalised children who rarely see their parents and received routine care developed smiling after 4 months of age : the children who were placed under the collective settlement and were raised by the professional caretaker after the first year care by the mother showed smiling earlier. In a sense they were more akin to the family reared children. It appears that it takes a little more time for a child to develop a schemata of human face in case the child is not reared in a natural environment.

Anxiety

Two major classes of anxiety grow out of close contact or attachment to an adult.

(a) Stranger anxiety and

(b) Separation anxiety

It is quite nature for a child to show fear or anxiety towards the stranger. But proximity to the mother inhibits the fear as if the child felt more secured when held by her. The emergence of stranger anxiety is interpreted in this way. That by age 6 to 8 months, most infants have developed such a good schema for their that the stranger is a discrepancy. After a year the child meets many persons coming to the house where is lives. The faces become generalised and a new face becomes less anxiety producing. But children who are brought up in institutions rarely show stranger anxiety because these children are acquainted with different human faces from the very beginning.

Separation anxiety appears when the mother leaves the child in the room alone and goes away somewhere for sometime or leaves the child behind while going to some places or one some occasions. The child is so attached to the mother that he can not face separation. This does not appear untill the child reaches around one year of age. It disappears when the child becomes 11-2 to 2 years old. In our culture even at 3 or 4 years of age the child feels separation anxiety, unlike the American culture where the child is separated from the mother in many ways quite in the development.

The situation giving rise to a feeling of separation anxiety may involve these components.

1. Discrepancy that is produced by being separated from the mother.
2. Discrepancy of habitual response to the mother.
3. Inability to make relevant responses that brings the mother.

But as the child grows older and older he experiences frequent separations from his mother and he interprets her absence and reassures himself of her return.

INADEQUATE CARE IN EARLY CHILDHOOD

The ill effects of inadequate care and institutionalization have been shown in case of mentally retarded children, animals and children who were kept in orphanages due to some reason or other. The work of Rene Spitz, during the 40's are quite significant with human infants, Spitz found :

(a) A child does not have a primary adult devoted to his care does rarely become attached to an adult, if at all.

(b) He is less likely to show stranger anxiety, separation anxiety and social responsiveness than the family reared chidren.

(c) He is less likely to smile, vocalise, laugh or approach adults.

(d) He is retarded in language development.

Harlow (1966) observed that monkeys reared in isolation for a period of six months or so develop extreme abnormal behaviour when they are removed from isolation and they placed in a normal or natural environments. They appear fearful, avoid social contact and it is difficult for them to come to a normal state, if the period of isolation is over a year.

So far as human babies are concerned, no one is raised in total isolation but the effects of lack of a caretaker can be studied among infants raised in an institution. Even in better institutions, a child has less opportunity to become attached to an adult. He shows less anxiety when the adult caretaker leaves the institution. The child in an institution rarely gets a chance to have face to face contact and vocalisation consequently leading to poor language development.

Spitz (1946) further observed that nearly 15% of children during 7 to 12 months, developed certain uncommon behaviours such as : crying, indifference to adults, living, sitting with cold and frozen face, apathy about the whole environment. These behaviours appeared due to inadequate care and inconsistant child rearing practices inside the institutions. In those institutions children are fed mechanically devoid of any humanitarian interactions. For the first 2 or 3 months significant differences did not appear between an institutionalised child and a child reared in neutral family environment, but the following characteristic differences appear in the institutionalised children after 4 months of age :

(a) Vocalisations are very little.

(b) No cooing, no babbling and very little crying is observed.

(c) No postural adjustment or preparation to go to the adults arms, is made.

(d) Around 8 months of age interest in toys and external environment decreases.

(e) Stranger anxiety is rarely seen.

(f) Facial expressions are blank and no expression as in family reared children.

(g) Withdrawal from frustrating situations are quite common.

(h) Even at one year of age, no sign of language development is seen.

The characteristics varied in intensity or degree depending upon the nature of deprivation. In Iran two types of institutions were observed :

(a) Deprived setting——where one attendant was looking after the children. No toys were made available; children were not allowed to play engage themselves in any kind of mother activity.

(b) Enriched Setting ——where one attendant was looking after 3 children. They were held in arms while eating. Toys and other play materials were available to these children.

In both these institutions children were admitted shortly after their birth. Their behaviours were compared during the second year of development. It was observed that nearly 90 of the children under the enriched setting could sit alone as against 42 per cent of the children of the deprived setting. Sixty per cent children of the enriched setting could stand and walk by 2 years of age compared to only 5 per cent of children reared in the deprived setting. Lack of opportunity to do motor activity has depressed the development of motor competence. But the main factor responsible for such behavioural retardation is absence of the motor or maternal deprivation.

Bowlby's paper (1944) concentrated on the effects of maternal deprivation experiences on later behaviour stimulated much research into the early mother child relationship. But Clarke and Clarke (1978) write "the whole of development is important not merely the early years." However, the early years are important because :

(a) the plasticity of the infant's nervous system makes him very succeptible to new learning.

(b) such learning is very impressionable and not easily overtermed by later and different (better) experiences.

The experiment of Harlow (1962) with rhesus monkeys and Denenberg (1962) with rats indicates that for these animals at least early infant experiences of a certain kind can lead to improverished facial and sexual behaviours and neuroticism.

Maternal sensitivity to the stimulation of baby's sense of curiosity and desire to learn has been discussed in the literature. What is infact important is not the quantity of interaction but the quality. Hence at this stage of our knowledge we do not know the extent to which multiple mothering or lack of responsive and sensitive care by itself affects the development of personality. But we have to consider that :

    (*i*) infant has an inherent ability to be social, which has however, to be developed.

    (*ii*) the plasticity of his nervous system and the speed of the development of his nerve cells in infancy enable him to learn in a manner, he will never be able to be equal and,

    (*iii*) his emotional needs and sense of helplessness are such that responsive caring must be immensely comforting and anxiety reducing.

More specifically behavioural deficits in the institutionalised deprived setting is due to the following three reasons :

    (*a*) maternal deprivation

    (*b*) minimal opportunity for social learning and development of motor responses.

    (*c*) lack of varied and distinct sensory stimulation.

The ill effect of institutionalisation are not confined to only early months of life but it has also significant effects on later life. Children who lived in institution for continuous three years showed that they are even inferior to foster children in.

    (*a*) Concept formation, reasoning and abstract thinking;

    (*b*) Ability to recall and inferential thinking during adolescence;

    (*c*) Language production and comprehension. Then children continued to remain as intellectually retarded even after a change to foster homes. They become emotionally more stimulating after living in foster homes.

The institutionalised children are more aggressive, dependent, attention getting, hyperactive, more distractible and emotionally cold compared to children reared in foster homes.

Lack of consistent interaction with the caretaker is major defect in the institutional setting which depresses linguistic, cognitive and social behaviour. Maturational activities are late to appear. In one culture, most children come from lower social class families and suffer from cultural deprivation which manifest in poor cognitive and social development. Such damages are irreversible. The bulk of the evidence supports the conclusion that placement of children in the institutions is emotionally and intellectually severely damaging to the child. Studies of animals reared in isolation indicate that simpler organisms too suffer from lack of normal stimulation and interaction.

Infant and childhood deprivation is not a simple concept. It may refer, not to the lack of the mother but to social isolation, cruelty and neglect, institutional upbringing, adverse child rearing practices, separation practices, severe economic and cultural deprivation. In early childhood children should be given adequate environmental stimulation; close, and intimate care and tender personal relationship should exist between children and adult members in a family, especially with the mother.

Critical Period

The critical period hypothesis follows directly from the ethological evidence for critical period in animal learning and imprinting (Bowlby, 1969). The white-crowned sparrow for example, must hear its specific song before it is four months old, or it will never learn it.

Comparative psychologists believe that a process akin to imprinting occurs in human and but this cannot be accepted unquestionably yet. Indeed there may be critical periods during which the child is especially sensitive to certain kinds of learning experiences.

The psychoanalytic or Freudian theory of development is probably the best to explain critical periods. Briefly stated the major aspects of this theory are as follows :

(a) development follows a set of immutable stages;
(b) the stages unfold as a result of biological development and action of the environment;
(c) development can be arrested and
(d) the personality characteristics of adult hood, one's propensity for certain psychopathologies and coping mechanism can be traced to childhood experiences. The developmental stages are described by Erickson (1963).

Adolescence may also be critical period during which certain key social attitudes are formed.

Harlow and Harlow (1949) have posed the following problem. How does an infant born with only a few simple reactions development into an adult capable of rapid earning and thinking ? Children come to school in order to learn and teachers hope to help them learn but learning is much wider than school learning.

Learning involves diverse activities such as learning to control our emotions; learning to conform to society's needs learning a skill; learning to think conceptually; as well as learning of facts. Than the question is how to learn ? Learning can be broadly of four types :

(a) imprinting
(b) imitation and identification

(*c*) classical conditioning and

(*d*) operant conditioning.

Imprinting is form of learning which has been extensively studied during the past 45 years, first in birds and later in animals and human beings. It was thought imprinting is instinctive learning which occurs very early in life. It occurs without any reward.

Imprinting is kind of amalgam of an inherited tendency to behave in a particular way and experiences occuring at the right time in early life display this behaviour. Lorenz (1935) found that newly hatched ducklings instinctively followed their mother but they also followed Lorenz if he makes quacking noises and not the mother duck. So in early life imprinting occurs and if the baby has been imprinted to something less it has adverse effect upon later life. Human belief are particularly sensitive at certain periods of life. To a particular kinds of experiences and that their later development may be affected if these experiences are missed.

Smiling, visually following the mother, attachment behaviour to a person are examples of human imprinting experiences, appearing before the baby is six months old. It is not a classical process of learning in case of human beings.

A human baby learns by imitation. Aronfred (1968) has suggested that affect has a strong mediating role in influencing the occurrence of the child to see that the act he is about to copy is an appropriate guide for behaviour for himself. Imitation is a kind of empathetic learning; the child experiences instinctively the satisfaction experienced by the person on whom he is modelling himself. Imitation or ability to imitate has been observed in the first few weeks of life. Identification is also a process of imitation which gives rise to learning characteristics of the identified model. Identification is observed from the behavioural act of imitation. Classical conditioning and instrumental conditioning techniques explain how behaviours are learned and modified.

Pre-school Years

As the child progresses his personality becomes more differentiated. For various reasons, the pre-school period is considered very critical. Many important characteristics have their genesis during this period such as : sex curiosity, dependence, aggression, regression, achievement motivation, sex-typing, anxiety and conscience. Some of these traits become stable and eduring early in life and are predictive of the future. For example a 5 years old who is anxious becomes shy when he is an adolescent or adult. The child's personality develops through the earliest complex social relationships in family.

Sex motive

Sex motives are wishes related to genital organs. Sex play occur in young children of both sexes. Stimulations from genitals also become more intense during the preschool period. Questions about sex, particularly about the origin of babies and anatomical sex differences are common between the age of 2 and 5. Instances of exhibitionism (exposing genitals), voyeurism (looking at others genitals) and curiosity about anatomy of opposite sex are very common. Malinowski observed that sex play is very common in Trobian Island where as it is very restricted in Western as well as in Indian culture. These usually create conflicts and anxiety and they anticipate punishment. A child is not likely to develop anxiety associated with sex and sexual behaviour if parents handle the sex curiosity of thier children with little realistically. In fairnesses, the parents should answer questions frankly, quickly, truthfully and without showing any sign of embarrassment. Sex education is now recommended in schools.

Aggression

Behaviours are actions that are intended to cause injury or anxiety to others including certain physical symptoms such as hitting, kicking, destroying property, quarreling, attacking others verbally and resisting requests. These behaviours have an innate biological basis. Lorenz speaks of aggression as a species preserving instinct in humans and as well as in animals. Aggression in human beings can be maintained by mediating cognitive structure and to a smaller degree is stimulus bound. Children who are more active are also more aggressive. Aggressive behaviours of children depend upon many factors :

(*a*) the motivation or desire to hurt others;
(*b*) degree of environmental frustration;
(*c*) observation and imitation of aggressive models;
(*d*) anxiety and guilt associated with the expressions of aggression.

Aggression is a reaction to frustration. Frustration arises when the path to the goal are blocked, self-esteem is threatened or the children are deprived of the opportunity to fulfil their motives. Children differ in their assessment of how frustrating a particular incident is.

A highly dependent child may be easily frustrated by the absence of his mother. Some children have low frustration, tolerance and others can withstand higher frustration. Children who have capacity to tolerate are not easily frustrated by minor frustrations. Aggressive response to frustration is learned. Aggressive actions eliminate frustration and evoke pain in the individual causing frustration. Hence, aggressive reactions are often repeated.

Regression

Regression is an immature response pattern at the time of frustration. Barker, Dembo and Lewin (1941) observed behaviour of children under free play and frustrating situations. Frustration effect was measured in terms of productivity, creativity, and constructive activities. The child in a frustrating situation cries immediately. His productive activities are very low. He becomes less creative and more rigid. It has been found that if the parents are clearly permissive of rewarding of aggression, children are likely to show and behave highly aggressively at home and in other settings where they feel aggression is permitted, expected, and encouraged.

Exposure to an aggressive model is likely to elicit aggression in children. Bandura and Walters exposed aggressive real life or fantasy models to preschool children. Ninty per cent children imitated the aggressive responses of the model. Only observation of aggressive models is sufficient to stimulate aggressive behaviour in children. Frustration is not a necessary antecedent condition for the occurrence of aggressive responses on all occasions. There aggressive responses which are acquired by observing the model may also generalise to other settings. Frequency of aggressive acts increases after exposure to aggressive models and as a rewards for such responses. Punishment for aggression according to principles of learning lead to inhibition of overt aggression. If aggression is punished, the child inhibits these responses and he expresses fear and anxiety to the hostile objects. Sears observed these types of maternal punishment on child's aggressive behaviour, such as : high punitive, low punitive, moderate punitive.

When punishment becomes sufficiently severe it inhibits the specific actions which are punished.

Displacement

It is a defense mechanism in which the actual object of aggression has been shifted to his appropriate substitutes. Homes rated high in both frustration and punishment produced children who manifested more frequent and more intense expressions of displaced aggression than children from homes rated low in both variables. The child while becoming angry with father hits a doll or breaks a toy.

Mothers who permit aggression on some occasion and punish it at other time are likely to have highly aggressive children. In consistency in discipline creates a frustrating situation which increases aggressive behaviour in children.

Dependency

In early childhood children are dependent, Dependency is a motive. Children have the wish to be nurtured, aided, comforted and protected by others. The children want to be emotionally close to and accepted by others. They seek attention, recognition, approval, contact clinging to adult etc. But if dependency behaviours are punished children will not exhibit such behaviour with increase in age. The child undergoes training for independence. Only under very pressing circumstances he expresses dependency behaviour.

Sometimes dependency behaviour may be based on the desire to get attention, social prestige, rather than a desire for more help or assurance.

Research studies have shown that two year olds are more dependent on teachers. 4 year olds are more dependent on peers. Two year olds cling more often 4 year olds.

A mother who consistently and frequently rewards and rarely punishes dependent behaviours should produce a dependent child while punishment for dependency should discourage this behaviour in the child. In institutional setting dependency behaviour does not develop. The genesis of dependency depends upon early experiences of consistent gratification of dependency need.

Sears, McCoby and Levin (1957) observed some mothers of kindergarten children who punished their children for dependency and as well as gave attention when needed. Reward for dependency has tendency to increase dependency only when it was superior compared to punishment for the same behaviour.

Girls continue to be more dependent at this age than boys. Highly dependent children become more aggressive when their direct attempts to get help from others are frustrated. Such dependent children are not popular in school. But children who are dependent upon peers are more complient when peers requested them to do something and are sympathetic and helpful to other children.

Dependency on adults has one advantage as their children learn faster when they are rewarded by adults. Experiments have shown that child's need for getting attention and nurturance are increased if they experience nurturance and their withdrawal of it. Praise after withdrawal was particularly an effective reward and it led to harder work and faster learning. Nurturance from a woman was worth more to a preschool boy than nurturance from a man but nurturance from a man was more effective with preschool girls. Those boys who are more dependent upon their mother do well in early years if they get teacher's praise.

Achievement motivation

Competence motivation is an attribute of personality. It is closely related to mastery and achievement in reading, writing and painting etc. Mastery motivation is limited to physical and intellectual achievement. Children learn competence motivation quite early in life. Nursery school children who spend most of time in achievement activities and are less dependent and do not need much emotional support from others.

Early reward and encouragement by mothers lead to greatly competence and achievement motivation among children compared to ignoring the child's behaviour. Winterbottom has stated that mothers who are selfreliant and independent, their children become more achievement oriented. Yarrow very clearly demonstrated that early training for independence and mastery, contributes to the development of achievement motivation.

Anxiety

Anxiety influences the activities of children as well as adults. Minimum anxiety acts as a spur to creativity, problem solving and inventive activities. Anxiety in children arise primarily due to :
   (a) less of parental love on the appearance of new baby,
   (b) real of imagined rejection by parents,
   (c) real or imagined rejection by peers,
   (d) severe punishment and restrictions,
   (e) parents put too high standards for children,
   (f) harsh or negative evaluations of the child's behaviour,
   (g) in-consistency in parental treatment of the child and frequent changes in mood and reactions to children.

Sarason (1957) and others observed the antecedents and consequents of anxiety in young children by questionnaire technique with regard to test taking situation in school.

But in preschool it is difficult to measure children's anxiety by questionnaire. Hence, teacher's rating and exposing the child to strange situations are used as methods of breaking anxiety. Anxiety affects social behaviour and cognitive functioning in adults. Highly anxious children are less active, more dependent, they feel inadequate and insecure in play and prefer immature plays.

With regard to cognitive functioning, anxiety may facilitate learning, if learning task is simple. But if the task is difficult and the well established response is incorrect, then anxiety interferes with learning. In verbal learning experiments and tasks children make more irrelevant and intervening responses, if the children are highly anxious.

In general anxiety impairs children's performance on :

(a) verbal tasks

(b) difficult tasks

(c) language pronunciation and comprehension

(d) learning of concepts

Since school learning becomes more difficult gradually, anxious children suffer more because of their anxiety in higher grades. Anxiety scores become increasingly and negatively related to indeces of intellectual and academic performance, over time.

Children use certain defence in frustrating situation. There are learned responses used to avoid or reduce feelings of anxiety and live reasonably comfortably. Every one uses defence mechanisms. But defence mechanisms may have consequences that are extremely deleterious for mental health and adequate emotional adjustment.

Defence mechanisms may be constructive or destructive, but certain defence mechanisms are common in preschool children.

1. Withdrawal	—	The child withdraws from any situation which appear threatening.
2. Regression	—	Primitive and earlier responses *i.e.* their sucking, nailbiting.
3. Denial	—	The child insists that the incident is not there.
4. Repression	—	The child forcibly forgets the unpleasant incident.
5. Projection	—	The child attributes his undesirable thoughts to others.

Identification

Many activities of children such as motives, attitudes, moral standards, etc. cannot be explained in terms of rewards, punishment and imitation. A more subtle process *i.e.* identification is involved.

Originally introduced by Freud, it is a process that leads the child to think, feel and behave is through the characteristics of another person, usually a model. Identification is not a consciously initiated process like learning.

The child observes his parents doing or displaying some activities. He acts as if he or she possessed those characteristics, feelings or emotions of the parents, with whom he has identified. Identification with parent is a very important source of security for a young child. On the other hand, the child identified with an inadequate model feels less secure and more anxious.

Identification is a process in which the child incorporates or observes

some of the models, complex integrated patterns of behaviour, personal attributes, characteristics and motives. Those are imitated spontaneously without any specific training or direct reward for imitation. They are generally more stable and enduring. Identification is a basic process in the socialization of the child. Two conditions influence the development of identification.

(*a*) motivation to process the model's attributes,

(*b*) the belief that he and the model are similar in some ways.

Most children feel that their parents have many desirable qualities which they would like to have. The discrepancy between himself and adults enable him to acquire parents attributes. The children identify with the parents and the parents serve as models because of :

(*a*) power over the child and other people,

(*b*) mastery of the environment,

(*c*) love

The process of Identification if facilitated, where the model is a highly desirable and attractive person. A nurturant parent is more likely to be identified than a rejecting one because a nurturant parent stands for pleasure, reward etc. For example a 3-years old girls may care for her toy in the same way her mother cares for her. When parents are warm and accepting their behaviours are easily identified.

Further more, the child imitates the parental behaviours in order to increase the basis of similarity between himself and parents' traits. The child tries to make himself similar to father or mother. Each time the child perceives similarity with model, identifications are strengthened. The development of identification is perception of similarity with the model either derived directly or from communication with others. He feels that he is similar to his parents.

When both parents are perceived as warm, powerful competent, the child will identify to some extent with both of them. Typically identification will be more with parent of the same sex.

As the child's social contact become wider and wider he tries to identify with adults and peers. Of course, it is difficult to state how much is due to learning with reinforcement and how much is due to identification. But the fact remains that identification is the central process in the acquisition of a very wide range of behaviour and attributes of personality.

Freud described two major products of identification (*a*) Sex typing (*b*) Conscience development.

Sex typing

Sex typing figures prominently in the socialization of the child. Most parents pay considerable attention to sex appropriateness of their child's behaviour, rewarding behaviours that are appropriate to his sex and discourage those that are not, that is, if a boy cries after defeat in play he is punished but if a girl cries she is rewarded. By age 4 & 5 children prefer toys appropriate to their own sex. Social pressure also foster sex typing of behaviour. The culture rewards for accepting sex appropriate behaviour i.e. the boy after his father and the girls after his mother. Sex typing are acquired at home largely through identification with and imitation of the parent of the same sex. The ideal situation for sex appropriate behaviour are :

(a) When same sex parent is warm, and rewarding and possesses desirable characteristics, and

(b) When both parents rear consistently sex appropriate behaviour.

Identification stems from a warm parental relationships. Mussen did a study on sex role preference of 5-years old boys using a projective test : 10 high masculine and 10 low masculine boys were asked to complete stories in a doll play. It was found that the high masculine boys perceive their father as more nurturant and warm. Feminity in preschool girls seem to be related to warm-mother daughter relationships. Kohlberg offered a new cognitive interpretation of the sex typing behaviour of children. According to him, the most significant factor in sex typing is the child's cognition, his selection and organisation of perception, knowledge and understanding of the sex role concept.

Sex typing is initiated by the sex labelling of the child as a boy or a girl, which occurs early in life. That he is a boy or a girl influences his values, attitudes and motives. For Kohlberg sex typing is not a production of identification and is a consequence of sex role. Boys model themselves after males because of their masculine interests. Hence they behave, think, and feel as men. So child's understanding of the environment strongly influences his sex typing behaviours. Freud's understanding of the environment strongly influences his sex typing behaviours. Freud's view is different from this.

Development of Conscience

During the preschool years the child gives evidence of learning some moral standards, he feels guilty for his wrong activity, if he violates anything, Freud regarded the development of conscience or Super Ego as a product of identification. He learns the parental moral standard and conduct i.e. being honest, obeying rules, right and welfare of others.

Anxiety about punishment or loss of love may motivate the acquisition of moral standards and behaviours that please the parents.

Parental discipline and affectionate relationship with the child are likely to foster the development of internalised reactions to transgression *i.e.* feeling of guilt, confession etc. Warm relationship between the parent and the child contribute to moral and conscience development in children. Especially maternal warmth and acceptance were found to be positively related to conscience development.

The use of withdrawal of love as a technique of discipline was also associated with strongly developed conscience among young children. But it is one of the many factors influencing conscience development in children. For Kohlberg, the level of the child's cognitive development is one of the crucial determinants of his moral judgement and behaviour.

We describe the changes in relation to the processes of change, influencing factors for change and the period during which changes take place.

Large number of studies concerning the relationship between family atmosphere, parental attitudes and the personal and social adjustment of children are reported. Parent child relationships affect the development of specific traits and motives and the general pattern and structure of personality of children in the preschool period to a considerable degree.

Family

Baldwin at the Fels Research Institute obtained some reports from home visitors regarding the general family atmosphere and parent child relationship. Two patterns of relationships emerged from these observations.

(*a*) Democratic

(*b*) Autocratic

Democratic atmosphere is characterised by general premissiveness, avoidance of arbitrary decisions, greater verbal contract between parents and children. Authoritarian or autocratic home atmosphere emphasize clear cut restrictions on behaviour with a strong and rigid discipline system.

Children who are brought up by democratic atmosphere are generally active, competitive, outgoing, non-conforming, disobedient and highly aggressive. Children from autocratic homes showed less of aggressiveness, disobedience, playfulness, tenacity or fearlessness and are non-aggressive.

The democratic homes seemed to produce greater intelligence curiosity, originality and constructiveness.

Baldwin stated that the democratic techniques can only be effective if they are consistent with parent's personality and attitudes. If rigid,

authoritarian parents attempt to employ democratic procedures, they are likely to find these difficult and frustrating and producing tensions that may be detrimental to the emotional health of the child during 3 to 5 years of age.

In democratic home the child is rewarded for curiosity and independent activity, for free expression of ideas, and for participation in decision making. These responses are rewarded and are generalized to other situations. Children who are brought for compliance and conformity show obedience in school years.

The child who is overprotected, and is not rewarded for independent action becomes timid, awkward, and apprehensive.

School

The family continues to be the primary agent of socialization but the people outside the family begin to have significant impact on the child's behaviour. School and the peers begin to play a more important role in the child's life and they serve as reinforcers and as models for imitation of new and different responses.

The school introduces the child to a new and different social environment such as teachers and peers.

The teachers attempt to enhance the child's personal adjustment and at the same time increase their social skills and sensitivity. They enforce certain behaviours and discipline, ignore or punish other kinds of behaviours. At the same time the child must adjust to his peers with whom he spends more time and they inevitably become agents of socialization.

In Nursery schools the objectives are not set for cognitive development but more in terms of personal and social adjustment. Nursery schools contribute mainly to the differences in sociability, self-expression, independence, social adaptability and interest in the environment. These characteristics are present for some time after entering the nursery school. Most children make rapid gains in social participation compared with peers who do not attend school. They become less inhibited and more spontaneous, independent, selfassertive, selfreliant, curious, and interested in the environment.

If the teachers pay individualized attention it reduces the maladaptive reactions such as withdrawal, regressive and submissive behaviour and raises the child's self confidence and frustration tolerance.

Peers

Peers become agents of socialisation by enforcing certain kinds of child's responses and by serving as models for institution and identification.

As children advance in age they spend more time in social interactions with peers and less time in idleness and solitary play. Four year old's reinforce peers behaviour more than 3 years old do using attention, approval, affection and acceptance as well as giving objects as reinforcements.

Almost all children manifest some problem behaviour but most problems disappear after a while. Behaviour therapy eliminates some of the problems relating to infantileautism.

The child comes to nursery school with little or no experiences in interacting with large group of children for long period of time. The child is introduced to society at large where he learns to adjust to groups. He soon becomes interested in his peers.

As children grow older they spend more time in social interactions of an associated or cooperative sort and less time in idleness and solitary play.

Between age 2 and 3 there is generally an expansion in the number of playmates. After this age there is an increase in the strength of friendship rather than in the total number of friends.

Academic behaviour and peer interactions also increase during the pre-school years while submissiveness diminishes. The extent to which peers would influence each other depends upon :
   (a) his attractiveness to the child.
   (b) the degree of affection between them.
   (c) his tendency to submit or dominate.
   (d) his ability to satisfy the child's motives i.e. giving help and support when needed.

Peers have significant impact on the child's learning. Hartur and his associates did many works on peer's reinforcing value. In one study 4 kinds of peer reinforcement were recorded.
   1. giving attention and approval
   2. showing submission
   3. token giving
   4. giving affection and or acceptance.

It was found that peer reinforcements resulted in substantial change in the personality of the child. Peers act more efficiently as reinforcing agents than adults.

Peers serve as very good models. Peer aggression is likely to be imitated. This was shown to children and then the children were taken into an experimental room which contained a variety of materials some of which could be used for imitative aggression. The results showed that :
   (a) peers aggressive behaviour was imitated easily.
   (b) boys showed more of imitation than did girls.

(c) peers acted more as a model than did adults.

(d) exposure to an unselfishness model will result in increase in the child's responses.

Peers can serve as effective models for behaviour modification. They can serve as models of calm, approach responses to stimuli that the child fears, and repeated exposure to such a model reduces the observers fear and avoidance behaviour.

Peers can serve more general functioning than those reinforcing and modelling. They can become chief objects of the child's attachment and emotional dependence. Among orphan children such attachment is more clearly seen. The children's unusual emotional dependence on each other was borne out further by the almost complete absence of jealousy, rivalry and competition which are normally seen among others or normal children.

Infantile Autism

Autism refer to profound and enduring symptoms of emotional disturbances. These children are characterised by an extreme degree of isolation and absence evident from early infancy. They do not make anticipatory responses to adults, their communication system are badly impaired, and speech is not ordinarily used in interaction with others. They are sometime mute. They repeat speech of others i.e. they have echolaliac speech. They exhibit anxeity in new and unfamiliar environments. They become engaged in repetitive ritualistic behaviour. They are interested in objects but not in people.

Lovas, one of the authority in the field stated that autistic behaviour can be eliminated by the following procedures of behaviour.
1. Punishing those behaviours when they occur.
2. Isolating the child or administering a painful shock each time he reveal the behaviour.
3. Autistic children may also be taught to approach others by reinforcement, by instruction to imitate other behaviour etc.

What parents should do

1. Provide access to as much as possible so that the child has the maximum opportunity to exercise his curiosity and explore his world. Opportunity to explore the world around the child is basic to the nourishment of his curiosity and instrumental to the development of social relationships as a natural outcome.

2. Provide a wide range of materials for the child to explore. Common household objects such as plastic jars with covers, large-containers, filled

with smaller interesting objects, a baby-proofed kitchen cabinet with pots, pans, and canned goods, are all perfectly suitable for a child between 7 and 18 months of age. The newly crawling child will, for several months, have a very special interest in the physical properties of small objects and the characteristics of motion they display when pushed, dropped, rolled, etc.

3. Be available to your child for at least half of his waking hours. Do not hover over him constantly but be available to provide attention, support or assistance as it is needed. A child needs the direction provided by a more experienced person to support his curiosity, to instruct in the area of language, and to encourage the development using and interacting with other people.

4. Utilize the following pattern of response to the degree it is possible when your child begins to make overtures to you from age 9 to 10 months on :

(a) Respond promptly as often as possible.

(b) Respond favourably as often as possible.

(c) Make some effort to understand what the child is trying to do.

(d) Set limits; do not give into unreasonable requests.

(e) Provide encouragement as often as possible.

(f) Provide enthusiasm as often as possible.

(g) Provide assistance as often as possible.

(h) Use words as often as possible.

(i) Use words child understands or words that are a little too hard for.

(j) Provide a related idea or two.

(k) Do not prolong the episodes if a child to leave; the interchange will usually last less than one minute.

(l) Encourage make believe or pretend activities.

5. If the child seems bored, and if it is convenient, provide things for him to do.

6. If a child is misbehaving, discipline him firmly and consistently. Children require that limits be set to their behaviour in order to develop into socially acceptable individuals who feel comfortable with other people.

Allow a child to try to do something that seems somewhat unsafe but not be ussafe if he were closely supervised. Give the child the chance to try the activity, under supervision, rather than stop him completely. The child wants to try a new activity, it probably is a naturally interesting and a potentially beneficial one. Such activities, when encouraged, lead to better development.

Don'ts for parents

(i) Cage the child or confine him regularly for long periods during the day.

(*ii*) Allow him to concentrate his energies on the primary caretaker to the point where he spends most of his time following that person around or standing nearby, especially during the second year of life.

(*iii*) Allow tantrums.

(*iv*) Worry that he will not love the primary caretaker if the primary caretaker says 'no' from time to time.

(*v*) Try to win all the fights with him, especially from the middle of the second year on, when the baby may start becoming negative.

(*vi*) Try to prevent the baby from cluttering the house. It is an inevitable sign of a healthy, curious creature.

(*vii*) Be overprotective. Besides are more careful that what people think.

(*viii*) Overpower the child. Let him do what he wants to do as often possible.

(*ix*) Take a full time job or otherwise make yourself unavailable to the baby during this period of life.

(*x*) Bore the baby if it can be avoided.

(*xi*) Worry about when the baby learns to read, count numbers, or say the alphabet, or even if he is slow to talk as long as he seems to understand more and more language as he grows.

(*xii*) Try to force toilet training. By the time he is two and a half, it will happen rather easily.

(*xiii*) Let the baby think the whole world was made, just for him.

There are certain behaviours shown by parents which can certainly make a child goonda, a problem, a delinquent.

What Really makes the Child a Problem ?

Mostly parental behaviours. These are :

1. From babyhood give the child everything, he or she likes to have. In this way the child will grow in conviction that everything is due to him from the world.

2. When you hear the child using 'bad' words, laugh so that he may think, it is witty. You will encourage the child in this way to use yet worse words, that you be able to roar with laughter.

3. Avoid speaking that your child did something wrong in order not to create in him a complex of guild. Due to this when your child will be arrested one day for theft of a motor car will be able easily to think that the society is against him and prosecutes him.

4. Never speak with him on moral or religious matters. You wait till he will be an adult and he will be able by himself to decide whether these things matter him.

5. You collect after him everything what he throws about : books, shoes, clothes etc. Do everything. He will be able to accustom himself to throw whole responsibility on others.

6. Allow him to read any prongraphic and bad book whichever he wishes. Take care only of the utensils, the child uses, that they be clean. Then his mind will live on rubish.

7. Have quarrel with each other (Husband & Wife) in the presence of your children. In this way they will not be surprised when one day your marriage will be broken and imitate your behaviour.

8. Give the child whatever money he wishes to have for different petty things. Do not allow that he should earn the money for it. Why child should not have better life than you had when you were once of his age ?

9. Fulfil his every whim in regard of food, drink or any other pleasure. Remember, that every sensual wish be at once fulfilled. Refusal may awake in him harmful complexes.

10. In presence of the strangers take always child's side : everybody is prejudiced towards your child.

11. When he afterwards turns out to become a criminal, excuse yourself, speaking : I never could achieve anything with him.

Middle childhood

Certain differences are observed in the personality development of children during age 6-12 years.

Parents differ in the way they bring up their children. Schaffer observed that parental behaviour is not unidimensional. The child of warm permissive parents is likely to be active, independent, friendly, socially assertive but may also be somewhat aggressive, bossy and disobedient. The child of warm-restrictive parents is likely to be more dependent, obedient, less creative, less dominant and competitive, more conforming, polite and neat. Hostile parent raise counter hostility in children and when combined with restrictions they tend to maximise self-aggression, social withdrawal and internal conflicts. Hostile permissiveness maximise aggressive and delinquent behaviours among children.

The child's development of self-esteem is high if the parent's self-esteem is high. It is also positive in case of children whose parents are warm, accepting and interested in the child's activities, who encourage autonomy, apply consistent discipline, and respect the rights and opinions of children.

Absence of either father or mother from home may make the child's adjustment and development of sex role identification more difficult

particularly when parental absence occurs early in life and when the same parent is absent.

Middle class mothers tend to more affectionate and less punitive than those of lower classes and the children have more favourable preception of their parents. Parents teach values and beliefs appropriate to their own class.

Sibling's social status influences the child's development of personality. Oldest children are more likely to achieve eminence and to identify more closely with adults, they are more likely to be anxious, over-sensitive, and fearful. Younger children tend to be more gregarious, defiant, and eager for showing attention.

Sex role standards are increasingly fostered during middle childhood. Boys are expected to be strong, courageous, ambitious, and active while girls are sociable, well mannered and neat and inhibit verbal and physical aggression. There are a set of culturally approved characteristics for males and females. The middle childhood represent critical period in child development.

According to Piaget before age 7 or 8 child's concept of justice is based on rigid and inflexible notions of right as wrong learned from parents.

7 to 8 Concept of right and wrong

8 to 11 Concept of equality

11 to 12 Concept of justice

Conscience development is based upon child's level of cognitive orientation and upon parental identification and other influences.

The following conditions are conductive for optimal development of conscience in children.

(a) Parents own conscience and moral standards are matured or reasonable but not rigid and harass.

(b) Adoption of parents standard are based upon positive identification and modeling.

(c) Love oriented discipline appears more effective in fostering conscience development than physical punishment.

In middle chidlhood the agents such as : peers, adults, newspapers, movies, books, magazines, contribute to sex typing. The growing child gradually adopts the more appropriate adult role relating to his sex.

The four years old judge can act as good or bad in terms of its reinforcement rather than in terms of the rule. By age 5 to 7 the children evaluate in terms of the reinforcement history *i.e.* whether or not it ieads to positive consequences. Kohlberg and Piaget almost agreed in their views of moral development in children. They just differed in some specifics.

Becker (1964) noted that parents who talk to the child about his misbehaviour are more likely to provide the child with a close understanding of what he did wrong. Aronfreed suggested that explanations and reasons provide the child with internal resources of evaluation of his own behaviour. Thus the child gets explicit training in making moral judgements.

Parental interest in school and reward for school achievement occur more frequently among middle class than lower class parents. Having faced higher level of intellectual activity in home he is likely to enter school better prepared to profit from the learning experience.

Deutsch and Havighurst believed that lower class children lack the ability to preceive the relationships between academic achievement and success in life, consequently are likely to adopt a so-what attitude toward the school. Their parent also feel indifferent and fearful to the school situation.

Parents who create a high level of anxiety in their children and strong concern for failing in school may affect not only their overall adjustment and self concept but their intellectual performance and academic achievement as well. Many children have normal fear of failure. They doubt their own ability to pass and solve problems. This anxiety can hinder his thinking and results in withdrawal of interest from academic tasks. Strong anxiety interferes in the performance on tests and makes the concentration difficult and learning becomes poor.

Feldhusen and others have found negative relationship between high anxiety and achievement test sources for reading and arithmatic and school performance. The strength of these relationships increase with age. So for children who become more anxious in these cases, performance declines and for whom anxiety is low and performance is high.

Personality Development

Anxious childrens are nervous in problem solving situation and therefore, performance is adversely affected. Anxiety is a painful and distracting feeling that can interfere with solution of problems and clear thinking, especially when problems are difficult in nature.

The child's contact with his peers also greatly expand during the school years. The peer group provides an opportunity to :
 (a) Interact with age mates
 (b) deal with hostility and dominance
 (c) relate to a leader
 (d) lead others
 (e) deal with social problems
 (f) develop a self-concept.

The child whose interactions with peers are rewarding, develops good self image, increased competences, and enhanced self-esteem. Unfavourable relationships create conflicts, anxieties, and poor self-concept.

During the early years of middle childhood the gang predominates. Between 10 and 14 children groups are highly structured and at 7 to 8 children associate with same sex peers. Boys tend to be more involved in gang and other peer group activities. Girls develop more intimate individual personal relationships.

Children having high status tend to be socially more aggressive, outgoing, cheerful, enthusiastic, intelligent and as well as friendly. Low status children possess anxiety, social indifference, withdrawal and hostility.

Peer group status is related to social class. High social status children have high peer group status and low SES children have low peer group status.

Depending upon the particular values of the peer group the child's motivation for scholastic success may either be strengthened or reduced. In middle class peer's scholastic success is valued and is retarded. Studies have shown that children who were popular are also better students and were more co-operative and intelligent as well as creative.

Throughout the middle childhood years, age as well as sex play an important role in determining the nature of the peer group relations. Both boys and girls tend to associate primarily with the peers of same sex but prepubertal girls begin to show interest in older boys.

Linton (1936) a specialist in personality and culture observed these attachments and said that these are not mere accidents but similar groupings exist throughout both literate and preliterate societies. The average time spent in family decreases as the child grows older and time spent in peer sittings increase, and so also peer group interdependence.

Sex linked interests and activities appear increasingly in school years. Girls show increasing interest in masculine games between grades 3 to 6 *i.e.* age 9 to 12. In general, boys are found to be more doers and girls are takers. Girls are interested in social relations and boys are in mechanical activities.

There are certain popular children in school who are good. They influence peer group status. They are friendly, good in sports, intelligent and creative. They come from high socio-economic status, and achieve high achievement in life. Body build and athletic ability also contribute to the development of high status. In low SES groups hostile, anxious, socially indifferent, rebelliousness behaviours are dominant. They are poor and mostly they withdraw from situation.

Adults do influence the outcomes of peer group efforts by steering their activities, defining behavioural possibilities and setting the tone of effective relations. They obviously provide the opportunity for the child to gain many immediate satisfactions. He finds others of his own level of intellectual and social development with whom to talk and to compare notes. He finds the members for group sports and game. The peer group strengthens existing attitudes, establishes new one and weakens those which are in conflict with the peer group values. The child who comes from a rejecting home finds solace in peer group and is influenced by peer group values most. If the child has not developed proper sex role identification it is because of the peer group values. Peers thus exercise greater influence in the socialization of the child. Rejected children in homes are greatly influenced by peer groups.

The most important tasks for the child during 6-12 years or middle childhood are :

> (a) development of various intellectual skill and academic skills.
> (b) motivation to master them
> (c) learning how to interact with peers
> (d) crystalization of sex role identification
> (e) increased autonomy and independence
> (f) development of moral standards and conscience
> (g) learning to deal with anxiety and conflict.

School becomes a world for the child. It occupies also most half of his waking hours. It plays an important part in helping the child to reduce his dependencies on his home. The school helps the child develop intellectual competence, acquire pride in one's work, persevere in solving problems, formulate long range plans, and establish meaningful relationship with age mates.

Teacher pupil relationship and teacher behaviour are important in school setting. The kinds of teachers a child has will determine in great measure whether his school experience will further increase his difficulties and frustrations. Children generally prefer teachers who are kind, cheerful, fair and consistent in discipline and enthusiastic. Some children may progress better with self-controlled teacher.

High competitive and anxious children respond to highly structured teaching methods than low anxious and low competitive children.

Optimal academic and personal growth will not be stimulated in most students by the teacher who is rigid, authoritarian, hostile, unresponsive, poorly trained, narcisstic or too much occupied with anxieties of personal problems. A democratic teacher is more successful in helping the child to develop his skills.

Parental influence on IQ and achievement

Guilford, Piaget and others have suggested that intelligence is the ability to benefit from experience, the case with which the child learns a new idea, or a new set of behaviours and the limit to which a person might from experience. Using standard tests of intelligence.

IQ can be obtained by using IQ = MA/CA × 100

MA — Mental age

CA — Chronological age

IQ — Intelligence quotient.

A child's IQ score is related to the desire to improve his knowledge and problem solving skills. Family experience encourages the development of this motive *i.e.*, to master intellectual tasks which would also increase IQ and motivation for intellectual mastery.

In a study, 20 boys and 20 girls were given various tests in a freeplay situation. Their parents were interviewed. It was found that some girls showed much greater interest in intellectual activities and these girls had parents who encourage intellectually oriented behaviour. For boys the relationship was also positive.

Fathers who told many achievement stories to their children, produced greater achievement and mastery of intellectual tasks than children who did not listen to such stories.

The mothers of high achievement children felt close to their sons, wanted them to be competent, and made demands for achievement. Boys with greater achievement had greater autonomy and freedom. Boys with low achievement motivation experienced greater degrees of rejection from both parents than the high achievement boys. Parents set high aspiration for boys and as they progress they tend to react to their performance with warmth and approval. The mother disapproves if the child performs badly. Middle calss mothers who are premissive, affectionate and who encourage school achievement, their children obtain good grades in school.

The girls who do well in school have mothers who are not overtly affectionate and they push their daughters towards independent behaviours.

Poor achievers appear to have comparatively limited place in the home. There does not appear to be so much of affection or mutual respect and desire to move upto expectations. Even expectations are limited for low achievers.

With regard to IQ, there is a positive relationship between maternal concern with the child's early developmental progress and the amount of IQ increases in girls. For boys it was positive but very low. Mother's concern for intellectual mastery influences both boys and girls but the effect is greater

for girls and than for boys. Mother's IQ is also a better predictor of girl's IQ than of boy's IQ. But maternal education are positively related. Well educated mothers are more sure to encourage mastery of intellectual skills than poorly educated mothers.

Increase in IQ score, desire to master intellectual problems and superior school performance are influenced by parental emphasis on an reward for intellectual achievement as well as for the establishment of independence.

Achievement primarily depends upon

(a) child's IQ

(b) parentalk expectations of the child's achievement

(c) child's motivation

(d) child's expectancy of success

(e) child's anxiety level.

The greater the parental emphasis on intellectual mastery the stronger will be the child's motivation to master these skills. If intellectual competence is one of the model's central attribute the child will attempt to increase his mastery in order to increase his similarity to the desired model.

As the child becomes 3 years old he seeks to avoid unpleasant things that aimed at failure. He develops expectancy of success for varied class of problems.

Finally, anxiety associated with intellectual mastery is important. Anxiety is likely to appear under two conditions :

(a) when expectancy of success is moderate

(b) when motivation is high but expectancy is low

In the first case uncertainly creates anxiety. The child does not know for sure whether he will pass or fail. In the second case, the child perceives the discrepancy between the valued goal and the possibility that goal cannot be attained. This creates anxiety.

High anxiety leads to inhibition of intellectual activities where as low anxiety is helpful for similar tasks but not for difficult tasks. Performance in case of the latter becomes more.

MEASUREMENT OF PERSONALITY

Projective techniques are not tests in the true sense because there are no right or wrong answers. These are indirect way of assessing the personality of the individual. They have their observations in everyday observations and have originated within the clinical setting. There are different types of projective tests.

Rorschach ink Blot Test

The Rorschach is one of the basic diagnostic tools of most psychologists.

It was developed by Herman Rorschach, a Swiss Psychologist in 1921. It consists of 10 cards, each having a different inkblot, five are printed in black and white and five in colour.

The individual child or adult is shown one card at a time and is asked to tell what the inkblot makes him think of and what it may mean to him. He collects information by using all the 10 inkblots. The responses are recorded and analysis is made on the basis of standard norm. This requires great deal of training and experience and as such should not be used by a teacher, a psychologist or researcher without having initial training.

Scoring of the subject's responses is done according to Human like action (M) animal like action (FM) abstract movement (m) shading (k) color (c) Responses are also scored according to location of the response.

Whole inkblot is indicated as 'W', part of the inkblot is devoted as 'D', if it is a small unusual part it is 'Dd'. White space is devoted as 'S'. The third category is interms of content. The content responses are : Human figures (H), human details (HD), animal (A), Animal Parts (AO) etc. Responses are also scored interms of popular or original response.

Certain specific interpretations can be given here :

Frequent M = high intellectual endowment

M = FM = sign of self acceptance

C, shading = Emotional life

and similar interpretations are made for others

The Rorschach is a very difficult instrument on which to establish statistical validity and predictive validity.

Thematic Appeception Test (TAT)

TAT is another widely used projective technique introduced by Murray and Morgan in 1938 at the Harvard Psychological Clinic. It consists of a set of pictures showing human figures in different poises and actions. Some of the pictures are only for boys, for girls, for females and for all. There are nineteen pictures for a particular age and sex and a blank card. One need not administer all the cards but one can select out of the 20 interms of requirements.

The individual tells a story based on the picture. The story has past, present and a future. The stories are recorded. The scoring of the TAT is not quite as time consuming as that of the Rorschach. Content analysis of the story is done in terms of complexes, defenses and conflicts.

Word Association Test

Word Association Test is an attempt to reveal associative connections between the words and verbal responses of the subject.

It dates back to Galton and Wundt but it is known after the name Carl Jung (1910). Jung used 100 words that were common to emotional fixations. The response word, Latency of response and minimum scores were all noted to each word. Kent and Rosanoff (1910) used a revised word list to understand the basic personality. More teachers are available for interpreting the response in terms of defences. Rappaport has also developed a sixty word list. The main issue is to analyse the built in associations. This is a test which is widely used and easily administered but requires skill to interprete.

Sentence Completion Tests

Rotter has developed the sentence completion test for High School, College and Adults. The individual is asked to express his true feelings in completing each stem. The scoring is done in terms of conflict, unhealthy responses, neutral responses and healthy responses. There is no time limit.

Draw a Person Test

Karen Machover (1949) has developed this draw a person test which is projective in nature. Administration of the DAP is relatively simple. Interpretation of the DAP is based upon psychoanalytic theory.

Bender Gestalt Test

It is a stylistic test. It is based on the classical teachings of the Gestalt school of psychology. Bender (1938) chose nine of the original Wertheimer patterns for her test.

It is aimed at evaluating intelligence, maturation, psychological disturbance and brain damage. Each of the nine design is in cards and the individual is asked to copy the design from his mind. The test is also standardised for use with children in the age group of 5 to 10. This test meant

Junior High Level	College and High School Level
1. Health and Physical development	1. Health and Physical development
2. School	2. Finances and employment
3. Home and family	3. Social and recreational activities
4. Money, work and future	4. Social and psychological relations
5. Boy and girl relations	5. Courtship, sex and marriage
6. Relations to people in general	6. Home and family
7. Self centered concerns	7. Moral and religion
	8. Adjustment to college/school work
	9. Future vocation and education
	10. Curriculum and teaching procedure.

for children has a high degree of validity for measuring school readiness with mentally retarded children (Koppitz, 1975).

The projective tests in general do not have statistical validity but psychiatrists and clinicians have demonstrated its effectiveness as a projective method.

PERSONALITY INVENTORIES

Personality inventories are objective self reports as contrasted with projective techniques which are generally administered individually and require subjective interpretation of objective stimuli by the individual. The personality inventory is structured and is usually presented in an objective format. There are many personality inventories but only a few of them will be presented here.

THORNDIKE'S DIMENSION OF TEMPERAMENT

It measures personality in terms of 10 dimensions. It aims at describing a person. It is applicable to high school, college students and adults in reusable booklet form. The booklets presents 20 sets each containing 10 items. The students reads all and selects three which do not describe him. Norm tables are available for interpretation. The dimensions measured in this test are : Sociable, Ascendant, Cheerful, Placid, Accepting. Tough minded, Reflective Impulsive, Active, Responsible.

MOONEY PROBLEM CHECK LIST

Mooney and Gorden (1950) stated that the usefulness of the problem check list approach lies in its economy for appraising the major concerns of a group and for bringing into the open the problem of each student in the group.

The Mooney problem checklist has four forms to be used for different levels junior high school, high school, college and adults. They are self administered and measure concerns of students as follows :

There are 210 items and the students write in their own words about the problems troubling them.

Sixteen Personality Factor (16 PF)

The 16 PF provides measures on 16 cattell. There are various forms of 16 PF and each one is developed in terms of factor analysis. The factors are not independent but correlated. The traits named are : Reserved Vs. Outgoing (A) less intelligent Vs. more intelligent (B) Affected by feelings Vs. emotionally stable (C) Humble Vs. Assertive (D) Sober Vs. Happy golucky (E) Expedient Vs. Conscientious (F) Shy Vs. Venturesome (G) Tough minded Vs. Tender minded (H) Trusting Vs. Suspicious (L) Practical Vs. imaginative (M) Forthright Vs. Shrewed (W) Placid Vs. apprehensive

(O) Conservative Vs. Experimenting (Q_1) Group dependent Vs. self sufficient (Q_2) Undisciplined Vs. controlled (Q_3) Relaxed Vs. Tense (Q_4).

Maudsley Personality Inventory (MPI)

The MPI consists of 48 items and provides scores on two traits; neuroticism and extroversion-introversion. It has also a short form of having only 12 items. The test was developed by Eysenek. It is a reliable instrument which has been quite extensively used in research studies.

Edwards Personality Inventory (EPI)

The test measures a number of personality traits in which normal individuals very. It consists of five booklets IA, IB, II, III, IV. Each booklet consists of 3000 items in True-False format. Booklets IA and IB measures 14 scales of personality, Booklets II, III, and IF measures II, 13, and 13 scales respectively. In this scale there is no offensive items like other scales. There is no item relating to religious and political beliefs nor there is any item relating to individual's health and body functions.

Edward Personal Preference Schedule (EPPS)

This test was developed by Edwards (1959) and used the forced choice technique. The items were paired and the individual is asked to indicate which of the item in pair is true ? There are 210 pairs of statements in the E.P.P.S. and scores are derived in terms of 15 scales. The EPPS scales are : Achievement, Defence, Order, Exhibition, Autonomy, Affilitation, Intraception Succorrance Dominance, Abasement, Nurturance, Change, Endurance, Heterosexuality and aggression. The scores on all the test will sum upto 210.

Minnesota Multiphasic Personality Inventory (MMPI)

This is one of the most widely used clinical test and has many variations and forms. It is mostly used in clinical practice. The clinical forms are :

Hypochondriasis, Depression, Hysteria, Psychopathic, Deviate, Masculinity and Femininity, Paranoia, Psychasthenia, Schizophrenia, Hypomania, Social Introversion.

There are also additional MMPI scales as much as the number is 200. These scales are empirical as well as rational scales.

There are many personality scales and inventories and can select depending upon the purpose and use.

From the above discussions it is clear that personality development takes different turn at different age levels. The traits that children develop are a joint function of the situations prevailing in family, school, peers groups and

society at large. Achievement and intellectual attainments are also influenced by these sources but mostly by parental expectations and abilities and characteristics of children which develop during these formative years of life.

REVIEW EXERCISES

Answer each questions within 500 words each :
1. Discuss the reward value of the mother and cite Harlow's observations on infant monkeys in this context.
2. Describe the nature of anxiety in children.
3. What is socialisation ? Discuss the role of imitation and identification in the socialisation of the child ?
4. Briefly describe the role of attachment on human behaviour.
5. Write a descriptive note on the development of conscience in children.
6. What is role of family on the development of personality ?
7. What child rearing practices are good enough for a healthy development of personality ?
8. What is the role of school and peers on the development of childhood characteristics ?
9. What are some of wrong activities that parents do which drive children away from normal development ?
10. What are some of the behaviour problems of early childhood ? How are they dealt with ?
11. Describe the relationship between parents and IQ and achievement of children.
12. What factors are generally associated with development of personality of children ? Explain.

Distinguish between (50 words) :
1. aggression and regression
2. rationalisation and projection
3. stranger anxiety and separation anxiety
4. deprived and enriched setting.

Write notes on : (50 words) :
1. Dependency
2. Achievement motivation
3. Displacement
4. Sex motive
5. Maternal deprivation
6. Sex typing.

Mention the contribution of : (50 words) :
1. Spitz
2. Harlow
3. Gewirtz
4. Sears
5. Winterbottom
6. Yarrow

7. Freud
8. Sarason.

Write notes on : (50 words) :

1. Infantile Autism
2. Self esteem
3. Culture and personality

Write whether the statements are True or False :

1. Withdrawal from frustrating situations are quite common.
2. Stronger anxiety is rarely seen.
3. Children are malleable.
4. Lack of varied stimulation retards IQ.
5. Overprotection leads to dependence.
6. Mother plays a greater role in the development of children.
7. Neglect of children by parents leads to aggression.
8. Environment seldom plays a part in personality development.
9. Father absent homes leads to better personality development in a male chil
10. Sex typing is desirable.

Fill in the blanks :

1. Behavioural relationship between mother and child refers to..........
2. ....is the pioneer researcher in the field of attachment behaviour.
3. Isolation effects in early childhood were studied by.........
4. ....demonstrated ill effects of institutionalisation.
5. Imprinting is a type of...........

18

Moral Development

During the past two decades there has been considerable research on moral development by Piaget (1932) and Kohlberg (1964). Such researches have led to defining what is moral behaviour ? What factors do influence the development of moral behaviour ? What are the phases of moral development and related factors ?

WHAT IS MEANT BY MORAL BEHAVIOUR ?

Moral behaviour means behaviour in conformity with the moral code of the social group, Etymologically moral is deriued from the Latin word ' Morea' means manners, customs and folk ways. Moral behaviour refers to behaviour of the members of a given culture which has been accepted and followed. It is not unsocial or immoral behaviour.

Children cannot be expected to know all the mores of the group that is expected to behave in a moral way at once. It is developed through socio-cultural conditioning. It is a feeling of personal responsibility that grows for one's acts. True morality is rarely found in children but it should appear occurring adolescence.

Moral development has both an intellectual and impulsive aspect. It refers to what is Right and Wrong. At birth, no child has a conscience or scale of values. Learning to behave in a socially approved manner is a long slow process which extends into adolescence. Children learn to conform to group behaviour no matter whether they agree or not.

'Moral' or 'Pro-social' behaviour are now used in the literature quite often. It means, behaviour which refers to actions that are intended to aid or benefit another person or group of people without the anticipation of external reward.

There are certainly a set of core behaviour which are moral and another set of behaviours (Stealing etc.) whose tacit dissapproval is also moral. But what constitutes morality is a subject of great interest.

According to Kohlberg (1964) justice is the ultimate value. True moral behaviour seems to arise from a conception of morality which is based on a consideration for the feelings of other people, and an appreciation of their needs and rights, and that is stern morality, moral knowledge, moral behaviour and moral feeling but seldom they are related to each other. The process of development changes with increasing age and is influenced by internal and external events.

Kohlberg (1964) states : "It seems obvious that moral stages must primarily be the products of the child's interaction with others, rather the direct unfolding of biological or neurological structure.....The fundamental factor causing a structuring of a moral order is social participation and role taking".

Moral development has 4 essential elements.

(a) Learning of laws, customs, and rules of society
(b) Developing a conscience
(c) Feeling of shame and guilt
(d) Social behaviour in the group interaction.

The child to learn what are the expectations of the group in terms of certain *laws and rules*, the sense of right and wrong, the prescribed pattern of conduct; the rules of social life.

The second essential thing is the development of a conscience to act as an internal control over the individual's behaviour. Conscience is developed and this is a characteristic of a child. It is called an "inner light, super ego, and internalised police man". Conscience ceaselessly keeps an eye on the individual's activities and gives him a sharp treat whenever he deviates from a path of duty. It is an internal standard which controls the behaviour of an individual.

Guilt is a negative self evaluation. Which occurs when an individual's acknowledged the behaviour is at variance with a given moral value. Similarly, *shame* is an unpleasant emotional reaction of an individual to an actual presumed negative judgement of himself by others rusulting in self depreciation vis-a-vis the group. It relies on external sanction alone. Guilt must be present in true morality. It is one of the most important psychological mechanism through which an individual becomes socialised in the ways of culture.

Social interactions play an important role in moral development. It provides the standards of social behaviour and a source of motivation.

Children learn social behaviour by interacting with family members and peers, neighbourhood, and the group at large. They learn new rules when they go to school. School has stealy influence on moral development of

children. Hence, it depends upon what kind of social group the child has or is interacting with.

Moral development is intimately linked with stages of intellectual development. The two most important studies in this area are those of Piaget and Kohlberg. They have shown how the ability to moral judgement and behaviour that conforms to approved social standards follow a predictable pattern related to the sequence of stages in intellectual development.

STAGES OF MORAL DEVELOPMENT

Intellectual and moral development are quite related. However, a brief description of stages may prove a better beginning for analysis of moral development.

According to Piaget, moral development occurs in two clear cut stages :
(a) Stages of moral realism or morality by constraint,
(b) Stages of autonomous morality or morality by reciprocity or co-operation.

In the first stage children behaviour is characterised by automatic obedience to rules without reasoning and judgement. They follow parents and authority blindly. In the second phase they judge moral behaviour in terms of underlying intent. This stage usually begins by 7 or 8 years of age and extends upto 12 years or more. The rigid notions of right among learned from parents. It corresponds with the period of formal operations.

Kohlberg (1964) has extended Piaget's line of thinking in moral development. He conceived 3 stages of moral development.

Level I : Preconventional morality. The child's behaviour is under external control. At first the child is obedience and punishment oriented. Then he learns to conform to social norms to get reward.

Stage 1. Heteronomous morality. The obedience-and-punishment orientation.

Stage 2. Individualism, instrumental purpose, and exchange. The egoistic stage, which aims at considering self first. But recognises the fact that others have rights.

Level II : Conventional morality. He learns conventional rules and conformity. Then in the later stage he learns not conforming to standards would lead to social dissapproval.

Stage 3. Mutual interpersonal expectation, relationships and interpersonal conformity. The Golden rule morality in which other's approval is sought by behaving correctly.

Stage 4. Social systems and conscience. Respect for authority and the social-order expectation of others with a need to support the system.

Level III : Post-conventional morality. Morality of self accepted principles. The child becomes flexible but develops social standards to avoid self condemnation.

Stage 5. Social contract or utility and individual rights. Legalistic orientation that recognizes the rights of others and majority rule. At this stage, the individual accepts majority rule but also work to change rules that he or she feels are unfair or unjust.

Stage 6. Universal ethical principles — Conscience or principle orientation in which the individual follows self-chosen ethical principles in a situation of mutual respect and trust.

Research has shown that people move through the same stages of moral development in a sequentially invariant manner.

Freud's ideas regarding moral development have concerned themselves with the internalisation of moral feelings and with the development of conscience which includes a sense of guilt. There are also positive aspects of how children come to assume the values of the people they love. Morality develops in children because of parental authority and subtle fear of loss of parental love.

Piaget (1932) has approached the study of moral development basically in two ways. One was to see how children's understanding of rules of behaviour becomes modified with age until genuine moral development has taken place; the other was to see how children learn to understand with increasing age the reason for behaviour where a question of morality is involved and thus they learn to make moral judgements.

According to Piaget, the young child under 4-1/2 years of age does not usually play co-operatively, but he plays in parallel with other children. As he approaches five years of age he begins to be aware that other children play with rules, but rules are not important for him. The child is still morally egocentric at this stage. After 5 children enter to the stage of heteronomous morality or moral realisation, or the authoritarian stage. The child does not know how the rules are framed, who did these rules those have existed. They play a lot of the games with rules. After 8, the child accepts that it is permissible to alter rules provided the other player agrees with it. This is the stage of autonomous, reciprocal, or equality stage. The final stage is equity which is reached around 12 years of age a stage of mutual respect, co-operation, understanding of rules, consideration the right of others. Hence the autogenetic development mirrors the phylogenetic development of man's ideas of jurisprudence.

Piaget (1932) reasoned that children's use of rules provided the foundation for their moral development. He observed the ways that children understood and used rules of games they were playing. As a result of his observations he was able to identify four stages of moral development.

1. **Egocentrism (infacy to school age).** The child is moral and motivated mainly by his or her own rules not easily accepting other's wishes before his or her own.

2. **Heteronomy (early elementary school age).** The young child understands that his or her needs and wishes are subject to another's law or authority. The child recognizes that there are rules of behaviour and follows them because there is an authority figure to praise or to punish as the occasion warrants.

3. **Transition (later elementary school age).** The child understands rules and begins to appreciate how rules make thing function.

4. **Autonomy (adolescence).** The individual acts in accordance with his or her own code of ethics, which has been developed through experience at earlier stages.

Piaget believed that an individual moves through stages in a fixed order and as a result of meaningful social experience coupled with significant cognitive development. These stages overlap and an individual can display behaviour and thinking across stages.

Besides these levels there are two distinct phases of moral development :
(a) Development of moral behaviour.
(b) Development of moral concepts.

Knowledge of moral development does not necessarily mean practice of moral behaviour because behaviour is motivated by various factors.

DEVELOPMENT OF MORAL BEHAVIOUR

Children can learn to behave socially by trial and error, direct teaching, or through identification. The last two methods are most effective and widely used. Trial and error are not effective but time taking.

The child must first learn to make specific correct responses in specific situations. This they do by conforming to the rules set down by parents and authority. Children transfer their behaviour from one situation to another.

When children identify with people they imitate the pattern of behaviour they observe in these people. A model therefore is good thing of development of moral behaviour.

DEVELOPMENT OF MORAL CONCEPT

The second phase of moral development consists of the learning of moral concepts or the principles of right and wrong in an abstract verbal form. This is different, therefore, the child has to wait till he develops that level of mental capacity to learn and transfer moral concepts.

Studies reveal that moral concepts are first specific, generalisations emerge later on depending upon how soon the child recognizes common elements in a variety of situations. Pre-school children for example, display good behaviour by obeying mother, and helping mother. By 8 or 9 their concepts become more generalised. They realise "stealing is wrong", it is wrong to steal. These social values are reflected as moral concepts. They tend to change as children's horizon and values change. However, by adolescence, moral values are well formed.

FACTORS INFLUENCING MORAL DEVELOPMENT

Discipline. The popular meaning of the term discipline is punishment. Discipline is the society way of teaching the child the moral behaviour approved by the group.

The goal of all discipline is to mould behaviour so that it conforms to the roles prescribed by the cultural group with which the individual is identified. This varies from culture to culture.

As Spock points out "some people believe that there are only two ways to raise children.
1. Overpermissiveness
2. Overstrictness producing good citizen.

Both are wrong premises and practices. These are also negative approaches. The positive concept of discipline is synonymous with education and counselling in that it emphasizes inner growth — self discipline - self control, maturity, restraint, channalisation of energy in a social way.

Discipline gives children feeling of security : Social approval, social acceptance, successful adjustment and happiness, ego boosting, motivation, conscience, but the nature and type of discipline determines in learning of moral behaviour.

There are four guidelines for behaviour :
(*a*) Rules and guidelines for behaviour
(*b*) Consistency in these rules and the techniques used to teach and enforce them
(*c*) Punishment for wilful breaking of the rules
(*d*) Rewards for attempts to model behaviour among social approved lines.

Punishment is another factor in the development of moral behaviour. This is the second essential discipline derived from the latin word punine means to put a penalty for offense.

Children have been taught what is right and wrong. Consequently it is assumed that any misbehaviour is international. Punishment for wrong thing has been justified if it has educational value, but for grow up children verbal explanations (that this is wrong, do not do this) is to be replaced.

Punishment plays three important roles in moral development.

1. The first function is restrictive — It does not allow to repeat socially undesirable activity. Children refrain from doing unsocial acts because of fear of punishment.

2. Function of punishment is educational — Before children understand Right/Wrong they learn it by differential reinforcement *i.e.*, punishment for wrong, no punishment for doing right. Then they learn by direct teaching which is reinforced by punishment for wrong activities. But punishment should be consistent. Severity of punishment is related to seriousness of the wrong act.

3. Motivation to avoid socially disapproved behaviour is the third function of punishment. The child is motivated to avoid the wrong punishment. Hence, it has a strong motivating factor.

Punishment may be different types

Corporal punishment, verbal insult or reproof, withdrawing positive attention. Spare the rod spoil the child is a popular slogan which is no longer true.

Punishment must be developmentally appropriate. If the child does not understand the act, punishment has nothing to do it. He must be able therefore to understand relationship between the two : Punishment and Act. As the child grows this understanding grows. Secondly punishment should fulfil the three functions : restrictive, educational and motivational.

Corporal punishment is least useful changing behaviour of young children. The most effective form of punishment for young children are : insulting, depriving the privileges given, isolating from family members, or playmates.

Punishment in order to be effective must be contingent upon behaviour. f a child throws food on the floor in a hit of temper the child must be made o clean it up immediately.

Punishment be consistent so that the child will know the consequent :ffect if he does wrong.

Punishment should be impersonal.

Punishment must be constructive so that it motivates individual to act accordingly *i.e.* to avoid unsocial acts.

Punishment must be fair and just.

Punishment be meant for conscience building and control of behaviour. It must not humiliate the child or it must not arouse resentments.

REWARDS

The third essential factor is Rewards. It means opportunity for the attainment. It does not have to be maternal. It can be approval, a smile or pleasing remark.

Rewards follow attainments. Rewards act as motivation to do work in a socially accepted manner. Rewards play three important roles in teaching children to behave in a socially approved way.
1. They have an educational value. Children know that they have done it correctly or their behaviour is good.
2. Rewards serve as motivation to repeat socially approved behaviour.
3. Rewards serve to reinforce socially approved behaviour and absence of rewards weakens repetitions of social behaviour.

Rewards may be tangible or verbal. The simplest rewards is social recognition. Social recognition and praise be used judiciously. Gifts are sometimes given as rewards for good behaviour. Sometimes special treat is given when someone develops good moral behaviour.

It can be stated that when balanced praise and encouragements are used positive social behaviour outweight undesirable behaviour in the ratio of 46 : 1. As they grow older, it serves as a powerful force for motivation to try to live upto expectation. Rewards have a tremendous value on learning of social behaviour and they have thus reinforcing value.

These are the factors which influence moral development but besides this the culture and traditions are significant factors.

However, there are certain factors which hinder the development of moral behaviour.

Low level of intelligence makes it difficult for a child to acquire moral concepts taught to them. They are unable to immitate automatically good models.

Defective teaching. Many times they are taught what not to do than what they should do.

Changes is social values are sometimes more confusing to a child than to an adolescent.

Different moral codes. Inconsistencies in values are learned. Parents and teachers are responsible for slow development of moral values.

Moral development is a fundamental characteristic of each child. The child gradually learns moral behaviour through a process of socio-cultural conditioning and learning under different influencing factors such as discipline system, rewards, punishment, conscience development. The child learns to be social and the process is complete by the time child reaches adolescence and passes through it. There are cultural variations and the moral behaviour is nothing but a reflection of the society and family in which one lives.

REVIEW EXERCISES

Answer each question within 500 words each :
1. What is moral development ? What are the stages of moral development ?
2. What is Kohlberg's view on moral development ?
3. What is Piaget's idea of moral development ?
4. What factors do influence moral development ?
5. Discuss the role of reward and punishment on moral development.

Answer the following within 50 words :
1. Discipline
2. Punishment
3. Reward
4. Conscience
5. Moral behaviour
6. Moral concepts.

Write whether the statements are True or False :
1. Overstrictness produces good citizen.
2. Overpermissiveness produces dependence.
3. Double discipline kills conscience development.
4. Punishment is most effective for the child to learn.
5. Rewards motivate and sustain socially appropriate behaviour.

Fill in the blanks :
1. ....extended Piaget's line of thinking in moral development.
2. ....originally talked of moral development in children.
3. Moral development is linked with........dovelopment.
4. Punishment should be..........
5. Changes in social values are sometimes more confusing to a .... then to an adolescent.

19

Mentally Retarded Children

A child's intellectual capacity can range from the level of genius to profound retardation in ability to learn. One of the early definitions of mental retardation was made using the classification levels of mental deficiency : idiot, imbecile, feebleminded and moral defective. It was a condition of arrest or incomplete development of mind existing before the age of 18 years.

The mental deficiency Act of 1921 in England considered "Mental defectiveness as a condition of arrested or incomplete development of mind existing before the age of eighteen years, whether arising form inherent causes or induced by disease or injury.

According to Doll (1941) there are six different characteristics of mental retardation. These are :
1. Social incompetency
2. Mental subnormality
3. The deficiency is developmentally linked
4. The retardation finally onsets in maturity
5. Retardation is of constitutional origin
6. It is essentially incurable.

The Encyclopedia Britanica defines mental deficiency as "A state of subnormal evaluation of human organism in consequence of which the individual affected is incapable of assuming these responsibilities expected of a socially adequate person, such as self-direction, self-support and social participation.

Sarason and Dorris (1969) defined, "Mental retardation refers to individuals who for temporary or long standing reasons function intellectually below the average of their peer groups but whose social adequacy is not in question or if it is in question, there is little likelihood that the individual can learn to function independently and adequately in the community.

Tredgold (1962) defined, "mental deficiency or amentia is a condition in which mind has failed to reach complete or normal development".

All these definitions were prevalent at different times and in different countries. But none of them are adequate in explaining the concept of mental retardation. The characteristics pointed out by different authors are also unrelated to each other. Therefore, the American Association of Mental Deficiency set up a committee under the Chairmanship of Rick Heber to develop an adequate definition of the concept of mental retardation. According to Heber mental retardation is "significantly sub-average general functioning existing concurrently with deficits in adaptive behaviour and manifested during developmental period" (Grossman, 1973).

This was subsequently elaborated as : Mental retardation refers to significantly sub-average general intellectual functioning resulting in or associated with concurrent impairments in adaptive behaviour and manifested in the developmental period (AAMD, 1983).

This definition has three important and interrelated characteristics :
(a) Sub-average intellectual functioning
(b) Development in origin
(c) Impairment in adaptive behaviour

A standard intelligence test is applied to assess the IQ of children. If the IQ falls below two or more standard deviations from the normal then the child has sub-average intelligence. In Stanford-Binet and Wechsler test the IQ points are respectively 68 and 70.

The low intelligence manifests during the first 18 years of life, and the child in order to be categorised as mentally retarded must also show impairment in adaptive behaviour. Adaptive behaviour is defined as "the effectiveness of degree with which an individual meets the standards of personal independence and social reponsibility expected for age and cultural group" (Grossman 1977). Adaptive behaviour means social adjustment which varies from simple self-help skills to that of personal social adjustment in adulthood. For example, during early childhood the emphasis is on maturational skills during school stage it is learning characteristics; and during maturity stage it is personal social adjustment. These are determined on the basis of scores on an adaptive behaviour scale developed by AAMD; Vineland social maturity scale; Adaptive behaviour Inventory of children.

A mentally retarded is one who is below average in intelligence, and who displays poor adaptive behaviour and all these are seen in the first 18 years of life. The degree of retardation would vary depending upon the amount of intelligence and adaptive behaviour.

As noted in the "The Six Hour Retarded Child" the students who perform poorly in school and in mental measures may function adequately at home, and within community. If they are able to meet family and social

needs in every area except in school achievement they are not retarded.

Interest in the study of mental retardation came from the pioneer work of Itard, the French Physician in his study on the care of The Wild Boy of Aveyron. Seguin subsequently focussed on appropriate educational placement and provisions for the low intelligent group of children. Recent years have seen many more progress in this field : legal, organisational and educational, because of interest groups and National Associations in U.S. and U.K. In our country special educational and rehabilitation programme for the handicapped have already been introduced through integrated education programme and special shoools.

IDENTIFICATION

How to know who is really mentally retarded ? Despite the controversy over the term of IQ, IQ continues to be a criterion for identification of retardation and their classification. Two most well known used IQ tests are : Standford-Binet, and Wechsler scales. These tests offer deviation IQs.

In addition to the criteria of IQ, the concept of adaptive behaviour is used in the classification and identification. It refers to the effectiveness with which an individual copes with the natural and social demands of his environment.

IDENTIFICATION OF THE MENTALLY RETARDED

There are certain behavioural signs which might give an indication about the presence of mental retardation among children.

1. General academic retardation characterised by slow rate of learning, poor problem solving skills, slow reaction to the environmental demands.
2. Poor memory ability. Inability to retain things for a longer period.
3. Difficulty in developing concepts especially abstract concepts. Absence of clarity.
4. Inability to arrive at generalisation and see common elements among different objects or events.
5. Slow language development—usually the language is limited in terms of vocabulary and variety.
6. Below average in imagination and creative thinking.
7. Inability to delay gratification and satisfaction by immediate reward.
8. Short attention span and intolerance to frustration.
9. Limited play and social interests.
10. Lack of concentration, heightened distractibility and incapacity for comprehension.
11. Lack of coordination in self-help skills (sucking, chewing, eating, use of hands, legs, fingers etc.).

Levels of Adaptive Behaviour from Birth to Adulthood

Description Terminology	Preschool Age (0-5) Maturation and Development	School Age (5-21) Training and Education	Adult (21 and over) Adequacy
Mildy retarded	Can develop social and communication skills, minimal retardation in sensori motor areas; rarely distinguished from normal until later.	Can learn minimal academic skills (third-through sixth grade level) by late teens; needs special educational, particularly at secondary age school age levels.	Capable of social and vocational independence with proper eduation and training; some need super-visions and guidance.
Moderately retarded	Can talk or learn to communicate; poor social awareness; may learn to walk and feed self Toilet training is minimal.	Can learn academic skills through third grade by late teens if given special education, although still functionally illiterate.	Capable of self maintenance in unskilled occupations, but needs supervisions and guidance.
Severely retarded	Poor motor developments speech is minimal; generally unable to profit from training in self-help; little or no communication skills; may learn to walk.	Can talk or learn to communicate; can be trained in elemental health habits; cannot learn functionally academic skills; profits from systematic habit training.	Can contribute partially to self support under complete supervision as by developing skills to a minimal useful level in sheltered workship, needs permanent care.
Profoundly retarded	Gross retardation; rarely develops feeding, speaking, toilet, or other self-help skills, often bed bound.	Some slow motor development; are bed bound; cannot profit from training in social halps, needs total care.	Little motor or speech develo-pment totally incapable of self maintenance, needs permanent care.

12. Some have physical features like small or large head, small eyes, straight hair, fissured tongue, low set ears and small stature, physical deformities and paralysis of one or more limbs.

13. In case of school going children there is repeated failures and inability to cope with the lessons.

delay Some of the normal milestones of development and average age range at which they are attained are :

1. Responding to name/voice	1-3 months
2. Smiling at others	1-4 months
3. Neck control	2-6 months
4. Sitting without support	5-10 months
5. Standing with support	9-14 months
6. Walking independently	10-20 months
7. Talking in 2-3 word sentences	16-30 months
8. Eating and drinking by self	2-3 years
9. Telling one's name	2-3 years
10. Toilet control	3-4 years
11. Avoiding simple hazards	3-4 years

Assessment is made on the basis of maturational and developmental skills in the areas of communications, motor ability and self-help in early childhood. In later period, learning and social skills receive greater significance and emphasis. During adolescence, social and vocational adjustments are emphasised. AAMD adaptive behaviour scale and the Caine-Levine Social competency scale are quite well known tests of measuring adaptive behaviour. The adaptive behaviour dimensions according to AAMD behaviour scale are related to the following dimensions—ABS Manual (1975).

COMPONENTS OF THE A.A.M.D. ADAPTIVE BEHAVIOUR SCALE

Part 'A'	*Part 'B'*
Independent functioning—Eating Toilet use, Cleanliness, Appearance and Care of clothing, Dressing and Undressing Travel, General independent functioning;	Violent and Destructive behaviour;
Physical development—Sensory, Motor;	Antisocial behaviour;
Economic activity—Money handling and Budgeting shopping skills;	Rebllious behaviour;
Language development—Expression, Comprehension, Social language	Untrustworthy behaviour;

development;

Number and time;

Domestic activity—Cleaning, Kitchen duties, other demestic activities;

Vocational activity;

Self-direction—Initiative, Perseverance, Leisure time;

Responsibility;

Socialisation.

Withdrawal

Stereotyped behaviour and odd mannerisms;

Inappropriate interpersonal manners;

Unacceptable vocal habits;

Unacceptable or eccentric habits;

Self-abusive behaviour; Hyperactive tendencies; Sexually aberrant behaviour; Psychological disturbances; Use of medication.

Sub-average intelligence and impairment in adaptive behaviour are seen before age 18 years. In India, Palit (1969) tried to find retardation being intimately connected with the planets like Mercury, Moon and Saturn. Jain (1972) found that family history and retardation had high association. Birth order and spacing between births have association with retarded condition. Those born as first born to mothers below 19 years of her age, had more chances of being retarded. Teja *et al.* (1970) found retardation having strong association with rural areas and family history of retardation or organic psychosis. Kuppuswamy (1968) did a survey in middle schools of Mysore city and found existence of 1.41 per cent cases of mental retardation. He also found caste as a variable in retardation. De Souza and Iyer (1969) found that among mentally deficient 36 per cent had primary and 61 per cent had secondary mental deficiency.

Mild (89%) Moderate (6%) Severe (3.5%) Profound (1.5%)
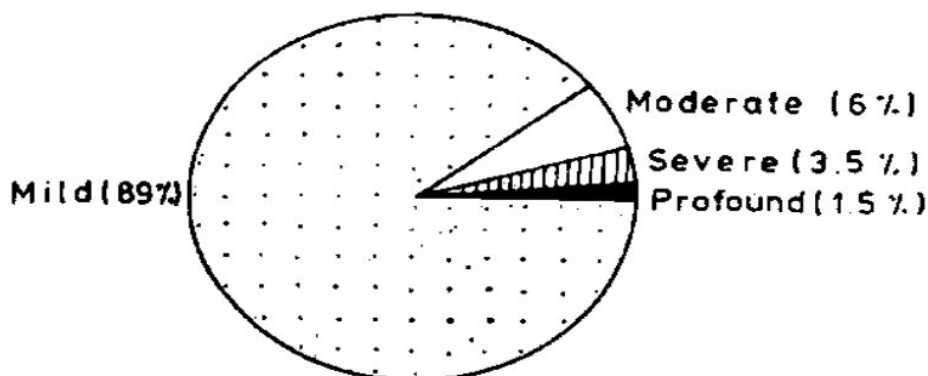
Percentage of Mental Retardation

There are different methods of classification of mental retardation. The medical classification is based on the cause, the psychological classification

on the level of intelligence and the educational classification on the current level of functioning of the mentally retarded person/child.

CLINICAL CLASSIFICATION OF MENTAL RETARDATION

Medical	Educational	Psychological	
1. Infections and Intoxications	1. Educable IQ 60-85	1. Mild Wechsler 55-69	Stanford Binet 52-67
2. Trauma or Physical agent	2. Trainable IQ 30-59	2. Moderate 40-54	36-51
3. Metabolism or Nutrition	3. Custodial IQ Below 30	3. Severe 25-39	20-35
4. Grossbrain disease (Post natal)		4. Profound below 25	below 20
5. Unknown prenatal influence			
6. Chromosomal anomaly			
7. Gestational disorder			
8. Environment influence			

The various classification provide an understanding of the level at which the mentally retarded person functions with respect to his education, appropriate behaviour and the degree of his independence. The characteristics of the mentally retarded persons vary depending upon the level of retardation, country, age, culture etc. The terms currently used to describe the various degrees of mental retardation are mild, moderate, severe and profound. Table-II describes the characteristics of persons with various degrees of mental retardation.

On the average 2.5% children are mild and moderately retarded and .5 per cent are severely retarded. However, there is no systematic National Survey conducted to determine the prevalence of mental retardation in India. Recently, it has been estimated that in India, there are about 20 million persons who are mildly retarded and about four million persons who are moderately and severely retarded. The figures of prevalence of mental retardation in India vary from 0.22 to 32.8 per thousand population.

CAUSES OF MENTAL RETARDATION

There are several causes leading to Mental Retardation.

GENETIC

One of the most visible condition associated with mental disorder is Down's syndrome. Mongolism was also used to explain this symptom because of similarity in physical features. Down's syndrome doubles when the mother's age exceeds 30 years. Down's syndrome contains non-sex determining chromosome. Chromosomal anomally explains many forms of mental disorders. In nondys-junction Down's syndrome one pair of genes fails to separate at conception, resulting in an extra or 47th chromosome after fortysix (trisomy no. 21). This is related to older age of the mother.

Translocation is common. It occurs because of faulty cell division in which one chromosome is attached to another. In Mosaicism, the cell receives an extra twenty first chromosome, but there are fewer abnormalities in this form of Down's syndrome.

The child with Down's Syndrome has small ears, protruding tongue with deep fissures, slanted eyes, broad hands with short fingers, short stature and underdeveloped genitalia. Congenital heart disorders and respiratory complications are quite common.

Degree of retardation in such cases varies from mild to severe. Treatment would involve special educational provisions and medication.

Turner's syndrome results from the absence of an X-chromosome in the female (XO). Learning problems are usually seen, including loss of hearing. Treatment includes use of female hormones to develop female sex characteristics. Klinefelter's syndrome is seen in male due to the presence of an additional X-choromosome (XXY) and chromosome count of 47. The male usually develops female characteristics. Mental retardation due to this factor remains within the moderate range.

CONGENITAL DEFECTS

Microcephaly and Hydrocephaly are two types of disorders which involve cranial and congenital defects. These are due to unknown origins and they exist before birth. Primary microcephaly is inherited whereas secondary microcephaly is acquired. In the case of primary microcephaly the brain tissue is underdeveloped but in relation to size of the cranium. Retardation ranges from mild to severe.

Overproduction or under absorption or cerebrospinal fluid is termed as hydrocephaly. The head is globe shaped, the bridge of the nose is flat and

the eyes are pushed downward, and become more widely spated. It is not hereditary. Surgery is applied to prevent further disorders.

GESTATIONAL FACTORS

Gestational disorders like prematurity also causes mental retardation. Even post maturity is also harmful in sense that surgery is applied for birth and because of extra growth, there is prolonged labour and consequent adverse effects on the brain of the new born.

Severe environmental deprivation, special sensory handicaps (deafness and blindness) contribute to retarded development. Multiple handicaps such as epilepsy, and cerebral palsy also account for some degree of retardation. After birth the child can cotract diseases such as meningitis and encephalitis which can also result in retardation.

LEAD POISONING

Today most victims of lead poisoning are infants and toddlers who are likely to take edible objects into their mouths. Common source of lead poisoning is use of lead paints in the wall, furniture, crib rails, toys, battery cases, chewing of lead pencils etc. The symptoms of lead poisoning include weight loss, anemia, stomach cramps and constipation. Other symptoms include mental depression, irritability, and convulsions. Lead poison is retained in the body and leads to permanent brain damage, and mental retardation. Lead poisoning is treated by using medicines *e.g.* 'EDTA' and maintaining a healthy diet. Lead free environment is to be ensured. Prevention is most important since it leads to permanent damage of the brain.

INFECTION AND INTOXICATION

During the prenatal period the fetus is succeptible to damage from maternal infection and intoxication. Within the first three months of pregnancy, the mother's infection of rubella can lead to serious complications, such as : mental retardation, heart disorders, seizures etc. About 10 to 85 per cent of rubella babies suffer from these types of ailments. Mental retardation occurs due to congenital syphilis, although syphilis can be controlled. Postnatal infections caused by viruses, bacteria, parasites and fungi may also lead to mental retardation. Toxic agents cause damage to the fetus. Mother-fetal blood group incompatibility can lead to death and spontaneous abortion of the fetus. This is inherited.

Exposure to X-ray in the early months of pregnancy, using harmful drugs especially those used in treatments of cancer, antiepileptic drugs and hormones can damage the growing fetus. Untreated fits of the mother, and accidents from falls resulting in injury to the abdomen can damage the growing fetus and lead to mental retardation.

TRAUMA

Prenatal, Perinatal and Postnatal injury cause trauma. Radiation cause prenatal injury which leads to retardation. Mechanical injury or birth injuries cause brain damage. Anoxia is responsible for mental retardation. Postnatal anoxia are caused by shock, respiratory difficulties. The extent of brain injury will determine the degree of retardation.

METABOLIC AND NUTRITIONAL DISORDERS

Galactosemia is a carbohydrate disorder which is transmitted genetically. In such cases, the infants fail to metabolise the galactose in milk. Unless the child is placed on a low lactose diet mental retardation onsets. Similarly, when the body fails to change phenylaline into tyrosine, it leads to phenylketoneurea. (PKU) which can be detected easily by urine culture or blood analysis. Low protein diet acts as prevention to such disorders. Hypothyroidism or Cretinism is a common disorder leading to low IQ. Use of Thyroxin can lessen cretinism.

POSTNATAL

Neurofibromatosis and Tuberous sclerosis are two examples of gross brain disease. Neurofibromatosis is hereditary and is characterised by brownish spots on the skin, and tumours in the brain and nervous system. Tuberous sceloris is characterised by reddish-orange nobules in a butterfly pattern in the face and cheeks. This is hereditary. Its treatment consists of removal of tumours wherever possible and use of anticonvulsants in case of seizures.

Postnatal grown brain disease includes genetic disorders such as neurofibromatosis and tuberous sclerosis. Hutington's chorea is a condition that does not appear generally until a person is in the mid thirties, at which progressive deterioration of the brain occurs. Preventive measures include sterilisation.

Percent of Mentally Retarded new patients in Mental Retardation clinics in the United States by Medical classification and subgroup by 1971

Primary Medical diagnosis of condition Causing or Associated with Mental Retardation	Percent
Total Mentally Retarded	100.00
Infection	**6.19**
Prenatal infection	2.70
Postnatal cerebral infection	3.49
Intoxication	**3.20**
Toxemia of pregnancy	1.19
Other maternal intoxications	0.37
Bilirubin encephalopathy (Kernicterus)	0.87
Post-immunization encephalopathy	0.10

Other	0.67
Trauma or physical agent	**11.72**
Prenatal injury	1.40
Mechanical injury at birth	2.12
Anoxemia at birth	5.76
Postnatal injury	2.44
Metabolism, growth or nutrition	**3.76**
Cerebral lipoidosis, infantile	0.13
Other disorders of lipid metabolism	0.17
Phenyleketonuria	1.03
Other disorders of protein metabolism	0.24
Galactosemia	0.12
Other disorders of carbohydrate metabolism	0.20
Arachnoactyly	0.04
Hypothyroidism	0.53
Gargoylism (Lypochondrodystrophy)	0.23
Other	1.07
New growths	**1.32**
Neurofibromatosis	0.62
Trigeminal cerebral angiomatosis	0.07
Tuberous sclerosis	0.43
Intracranial neoplasm, other	0.20
Prenatal influence	**24.72**
Cerebral defect, congenital	7.20
Cerebral defect, congenital associated with primary cranial anomaly	2.56
Laurence-Moon-Biedl syndrome	0.07
Mongolism	8.15
Other	6.74
Unknown cause-structural reactions manifest	**16.85**
Diffuse sclerosis of brain	0.29
Cerebral degeneration	0.28
Prematurity	6.30
Other	9.98
Uncertain cause—functional reaction alone manifest	**32.23**
Cultural familial	8.78
Psychogenic, associated with environmental deprivation	4.26
Psychogenic, associated with emotional disturbance	4.03
Psychogenic (or major personality) disorder	2.03
Other	13.13

Source : U.S. Department of Health & Welfare, Mental Retardation Clinic Services, 1971.

Chromosomal anomalies can now be detected prior to birth through a surgical technique known as aminocentesis. In this procedure a sample of the aminotic fluid surrounding the fetus is examined and if chromosomal abnormalities are present it can be determined that the child will be affected. A decision can then be taken to abort the fetus.

Environmental influences explain by far the greatest number of cases for which an etiological classification is given. Prevention focuses upon the enrichment of impoverished environment and the provision of high quality educational and social services.

Verghese and Rao (1961) have discussed in some details some aspects of pathology, diagnosis, and management of mongols. Mothers of the mongols were 10 years older than the mother of the normals. Immediate elder of a mongol was three years older than the immediate elder of the normal. The average position of the mongol child in the family was eighth.

Preventive Measures

1. Vaccination against rubella.
2. Surgical procedure to correct hydrocephaly.
3. Amniocentesis to detect chromosomal aberrations in the fetus.
4. Use of drugs to control the effects of childhood illness.
5. Blood transfusion of Rh-factor babies and vaccination of Rh-sensitised mothers.
6. Laws that prohibit the use of lead based paint on baby toys and furniture.
7. Dietary treatment of PKU and galactosemia.
8. Improved maternal nutrition and parental health care.
9. Genetic counselling for persons who are carriers of potential genetic defects.
10. Enrichment of impoverished environments.

CHARACTERISTICS OF THE MILDLY MENTALLY RETARDED

Learning and Memory

Mildly retarded children have poor learning ability and they forget quickly. Learning difficulty in the subnormal could be partly overcome by manipulating the rate of presentation. Sen and Sen (1967) in a comparative study of two significantly different mental age groups or retardates found that low M.A. group learnt very slowly but on recall test after a fortnight the difference between the two groups was not found significant. In another experiment Sen, Clarke, and Cooper (1968) found that no difference in recall after one month interval although they found that in serial learning control group was significantly faster. Sen and Sen (1969) found negative correlations between speed of learning and intelligence. Sen and Sen (1969) in an experimental study tried to determine the effect of prior learning on subsequent learning. The results showed that the high degree of prior learning, lad to a positive transfer in learning of the second list. Sen and Patnaik (1973) study demonstrated that transfer from one task to the other

equivalent task was sufficient enough to alter the second learning situation in such as that mastery of the transfer task was rapid. In a study of reminiscence in retardates Roy (1971) found that there was improvement in the reproduction of new response. Over learning improves memory.

Das (1965) found that the retardation has longer reaction time. The retardates were found to be more sensitive than normal to evaluative verbal stimuli like "good" and "bad". Retardates could name colours faster than reading and words and showed relatively less interference than normals in naming the colours of words. Das (1961) found that intelligence level among the retarded was related to the ability to acquire and extinguish verbal conditioned responses. As the tasks became complex, this difference increased in proportion to intelligence. Same was true of classical conditioning (Narayana and George, 1970).

What is to be done to improve their learning and memory ?

1. Use metarial that matches the developmental level of the pupil. Be sure that success is possible.
2. Limit the length of the learning task to be commensurate with pupil's attention span.
3. Present the task in small, sequential steps.
4. Intoduce few elements of a concept in any period.
5. Present concepts in a concrete manner.
6. Provide repetition, especially distributed practice.
7. Provide for transfer of learning by presenting the same concept in a variety of settings.
8. Present learning tasks that are useful in real life situations.
9. Use creative repetition in presenting tasks by varying the presentation slightly to maintain student interest.
10. Use the principle of over learning to teach mastery and to ensure long term memory of the material.

PERSONALITY

Certain basic differences are observed in Mildly retarded and normals. The retarded scored higher on extraversion and lower on neuroticism scales. Retardates are more extraverted than normals. Mohan (1972) found that the retarded and gifted did better on persistence test than the normals. The subjects who were high on extraversion and neuroticism and low on intelligence were found to be a more persistent. Retarded are very rigid both physiologically and in their personality make up. The retarded were also emotionally disturbed. Sircar (1975) found them to be more hostile than normals on diagnostic tests. They need help in resolving their conflicts.

Gandhi (1974) demonstrated that the retardates could learn a variety of social behaviours through social feedback. Banerji (1970) using sociogram method studied the relationship pattern of pairs of retarded children. Panda and Lynch (1973, 1974) found that retardates had greater faith in luck and failure situations' as compared to success situations.

Retarded children have a poor self concept and are very impulsive. They show a global style of looking at things. They do have an external locus of control (Panda & Lynch, 1971; Panda, 1971; Panda & Lynch, 1974).

Physical Fitness. How do educable mentally retarded children compare in physical fitness to their normal school age peers ?

The Francis and Rarick study (1959) was the first well controlled examination of the differences between normal and mentally retarded subjects in physical fitness. They tested 284 mentally retarded children with a CA range of from 7.5 to 14.5. Twelve of the 16 tests utilised in the study were measures of physical fitness.

The findings indicated that the mentally retarded children were markedly inferior to normal children of the same age in all tests and that the difference seemed to increase with age. It was also noted that the performance of the retarded subjects followed the same pattern as that of normal children, but at a lower level.

In considering the fact that retarded children as a group are extremely heterogeneous in many attributes. Auxter (1966) compared a group of 35 normal boys with three groups of differentially diagnosed mentally retarded boys on five tests of physical fitness. Based on the Riggs and Rain (1952) classification, 33 boys were classified non-brain damaged, 31 boys as brain damaged, and 27 as undifferentiated. The retarded boys ranged in CA from 9 to 11 years and in IQ from 50 to 79.

The results indicated that the normal boys were significantly superior to the three groups of retarded boys on tests of grip strength, vertical jump, and ankle flexion. No differences were found among the three retarded groups on any of the tests except the vertical jump, on which the non-brain damaged group outperformed the other two groups of retardates.

What is the relationship between motor skills proficiency and intelligence ? How do retardates compare in motor proficiency with normal children of similar chronological age ? And does motor skills proficiency have any relationship to peer acceptance or social class ?

Sloan (1951) administered the Lincoln Adaptation of the Oseretsky Test of Motor Proficiency (Sloan, 1948) to 20 institutionalised boys and girls and 20 normal boys and girls. Of the ten male retardates, five were further

classified by medical staff as familiar and five as undifferentiated. The same procedure was followed for the girls.

The results indicated that the retarded boys and girls were significantly inferior to their normal counterparts on all six motor proficiency factors.

Howe (1959) found that normal boys and girls performed significantly better than retarded children on 11 measures of physical ability. The tests used in this study included three fitness items, four gross motor items, and four fine motor items.

In general, it can be felt that educable mentally retarded children as a group may be expected to be inferior to children of normal intelligence and similar chronological age in physical fitness and motor skill proficiency.

The question of whether or not the motor skills proficiency of educable mentally retarded children can be improved was tried out.

Lillie (1966) administered 65 diagnostically based motor development lessons to a group of 16 preschool culturally deprived children. This was a subordinate study to the Hodges. McCandles and Spicker (1964) study. The lessons were evaluated in terms of a gross motor score and a fine motor score on the Lincoln Oseretsky Motor Development Scale. The contrast groups were a kindergarten control group and a home control group.

The results of this study indicated that all groups made significant gains in gross motor proficiency. However, the fine motor proficiency of the experimental group was significantly superior to that of the kindergarten group, which in turn was superior to the home control group.

Dempsey (1968) conducted a two hour a week programme of specially designed balance activities for a four months with elementary school age retarded children. She included only one control group that received a standard physical education programme during the usual period of time.

The results indicated that the experimental group made significantly greater gains than the control on several gross motor tests including all six balance tests on the Lincoln Oseretsky.

In short, Educable mentally retarded children, as a group, seem to be from one to two years behind their normal counterparts in physical fitness.

The physical fitness pattern of development for retarded children is similar to that of normal children, but at a lower level.

Mentally retarded children, as a group, are inferior in motor skill proficiency when compared than it is for normal children. Children classified . as brain damaged and non-brain damaged do not appear to be significantly different on measures of physical fitness and motor skill proficiency.

Some of the research implies that retardates are more proficient in gross motor skills than they are in fine motor skills.

Based on the intervention research the following conclusions may be drawn :

1. Specially planned and implemented motor development programmes are beneficial in improving the gross and fine motor skill proficiency of educable mentally retarded children.

2. Specially planned programmes of physical education and physical conditioning are beneficial in improving the physical fitness of educable mentally retarded children. In some cases, such improvement compares fovourably with the performance of normal children of similar chronological age.

3. No cause and effect relationship has been demonstrated between physical education programmes and improved intellectual functioning.

CREATIVE THINKING

Early writers in this field have used such terms as, imagination and creativity to explain the phenomenon we now term productive thinking. According to Guilford (1959), divergent production is the creative component of thinking. Guilford's theoretical position explained in his model of the "Structure of Intellect" has provided the foundation for much of the research in this area.

Guilford's (1959) model describes the individual's ability to vary his thinking in different ways. This productive thinking has four major components; flexibility, originality, elaboration, and fluency. Flexibility is a measure of the ability to change one class of thinking to another. Originality indicates the uniqueness of a response. The response may be of high, medium or irrelevant quality. Elaboration is a measure of the number of ideas used to build into the basic response. Fluency is the number of relevant responses given within a specified time.

The great majority of the studies done in this field have been done with intellectually gifted children. It seems that most investigators have not considered the possibility that children of below average intellectual functioning may exhibit some degree of productive thinking ability.

How do retarded children compare with normal children in productive thinking abilities ? and (b) Can the productive thinking abilities of educable mentally retarded children be improved ?

A comparison of the productive thinking abilities of retarded and

normal children was attempted by Crawley (1966). One verbal and two non-verbal measures of productive thinking were administered to a group of 26 special class retardates, a group of 26 regular class retardates, and a group of 26 children of normal intelligence. The three groups were equated in mental age. Crawley found that no significant difference existed among the groups on the measures used. He also found no significant correlation between mental age, IQ, and the productive thinking modes utilised.

Tisdall (1962) was one of the first to investigate the effects of schooling on the productive thinking abilities of retarded children. As part of the Goldstein (1965) study, Tisdall administered Torrance's (1960) tests to a group of retarded children in regular classes, a group of retarded children in special classes, and a group of normal children. He found no significant difference among the groups in non-verbal measures. However, the means for the normal and special class groups were significantly better then the means of the regular class groups on the measures of verbal productive thinking. With regard to the comparison between regular class retardates and normal children, the results of the study are in direct agreement with the results of the Crawley (1966) and Smith (1967) studies.

A more direct attempt to influence the productive thinking abilities of retarded children was attempted by Rouse (1965). Rouse constructed an experimental group and control group of Special class retardates ranging in age from 7-7 to 17-2. The Minnesota Tests of Creative. Thinking (sub tests, productive improvement and circles tasks) were administered to each subject. The experimental classes were exposed to a six week program of productive thinking activities devised by the investigator. The regular classroom teachers were trained to administer the program. The results indicated that the experimental group made significantly greater gains than the control group.

The following conclusions were drawn :

(a) There seems to be a weak relationship between productive thinking and IQ and academic achievement.

(b) Educable mentally retarded children demonstrated a lower level of verbal productive thinking than normal children, but seem to be equal to normal children on measures of non-verbal productive thinking.

(c) Conflicting evidence exists with regard to whether or not the productive thinking abilities of retarded children can be improved.

SOCIAL AND EMOTIONAL CHARACTERISTICS

Retarded children appear to be especially vulnerable to emotional problems

because of their intellectual handicaps. Their deficiencies in judgement, in understanding of their environment, and in anticipation of the results of their behaviour constantly lead them into situations in which they experience failure and punishment.

Most of the research that has been done on social and emotional adjustment of EMR children can be categorised as studies to determine one of the following : (a) the adjustment of EMR children in regular classes, (b) the adjustment of EMR children in special classes, (c) the adjustment of EMR children in regular classes compared with the social position of EMR children special classes, or (d) the adjustment of EMR children in partially integrated arrangements.

The findings of the studies dealing with administrative arrangements could be summarised as follows :

1. The mentally retarded child in the regular classroom is not accepted as readily as his more capable peers.
2. Placing a child in a special class does not necessarily mean that his acceptance or self concept will improve.
3. The special class seems to promote better "sociometric" adjustment of a retarded child; that is the retarded child will be more accepted and less rejected in a special class than in a regular class, partly because of the decrease in numbers and a different reference group.
4. The self concept of the retarded child will be better if he is left in a regular class only if interventions are introduced.
5. The special class retarded child probably interacts less with his neighbourhood peers than he would if he were in a regular class.
6. Partially integrated arrangements do not give a retarded child sociometric equality with the normal child, but they do improve the retarded child's self concept.
7. Achievement motivation is poorer for EMR's placed in special classes.
8. Parents of EMR's are satisfied with their child's progress and placement in special classes.

Many of the recent studies reported in the literature of social and emotional adjustment of the retarded deal with ways of improving the adjustment of EMR children. This is an encouraging sign. Too often the reaction of educationally oriented professionals, among others, to poorly adjusted EMR's has been really negative. It has been felt and often verbalised that nothing constructive could be done. Many seemed to feel that if they ignored the problem it would go away. The problem usually "went away" in the form of a drop-out without, or probably because of, no intervention program on the part of the school. The studies presented in this section

generally will not be presented in detail; most of them are not controversial but what is of interest usually is whether or not they found something 'that worked' and to what group the results may be generalisable.

The retarded child lacks social skills in comparison with normals. This can be inferred from his poor scores on sociometric devices. Also, Johnson's (1950) finding that the mentally retarded are rejected because of their antisocial behaviours is another indication of the lack of adequate social skills. Aprasia (ability to perceive persons as separate entities but not in meaningful or significant interaction in group activity) may contribute to social skill deficits. Tayler (1967) found a significantly greater incidence and degree of aprasia among retardates than among normals of the same chronological age. His EMR sample had a mean (A) of 12 and IQ range 50-65. Another factor which contributes to poor social skills is poor logical thinking which is probably correlated with aprasia. Ross (1967) conducted a study to determine if a training program in which social skills were taught would increase the young EMR's knowledge of appropriate social behaviour. He found that his experimental group, receiving specific training, was able to improve significantly in both knowledge of appropriate social behaviour and logical thinking. This carefully designed study has implications for public school EMR programs. Mentally retarded children would benefit from the inclusion in the curriculum of a formal training program designed to improve knowledge of appropriate social behaviour. It seems reasonable that as a result of this training program the prevalence of aprasia among EMR's would also decrease.

Probably the pedagogical methods, group counselling, grouping with popular children and specific ideas for improving social skills would be most appropriate with the educable mentally retarded groups. The vocational counselling would be appropriate for upper trainable and educable groups. The social reinforcement techniques are appropriate for all levels of retardation and in all environments home, school, or institution. The various techniques probably produce different levels of changes in adjustment and bring about these changes with varying amounts of time and/or effort invested. Once behaviour modification techniques are learned, they can be applied relatively easily to bring about rather immediate changes in sociometric standings. The group counselling methods take much longer and probably endanger changes in individual's self concepts. This approach would be utilised if the "deeper" levels of personality adjustment were of interest. It is encouraging that serious thoughts and energy is being extended in finding ways to help the retarded become more socially adjusted.

Opportunities to develop more appropriate social skills include the following :

Exchanging proper greetings
Engaging in play activities
Seeking alternative strategies to fighting
Developing a sense of human knowledge of whom to trust
Participating in small group work
Engaging in social interaction

Lenneburg, *et al.* (1964) attempted to assess the linguistic production of a group of mongoloid children and to correlate this with progress on some other developmental indices. 63 Mongoloids were studied over a three year period; measures consisted of medical histories, neurological examinations, psychological testing, and tape recording of spontaneous utterances, assessment of vocabulary, sentence repetition tasks, and performance on the Binet and the Merrill Palmer. Stages of language development were determined by assessing the child's language production, and then intercorrelations were computed between these stages and performance on development indices.

Correlations were found between age and stage of motor development, naming, vocabulary and understanding, and ability to repeat sentences which were complex syntactically. No correlation were found between comprehensibility and understanding. IQ and stage of language development, articulation of a test and articulation spontaneously, pronounciation of phonemes in one context and another, and complexity of grammatical structure obtained and ability to parrot sentences.

These findings appear to indicate, as linguists have long believed, that there is a connection between language development and other developmental tasks. It is interesting to note that when a non-verbal test is used. There is no correlation between IQ and stage of language development. Furthermore, as one might suspect, naming, extent of vocabulary and understanding are intimately related to stage of language production.

The study has implications for the speech defects, since the degree to which the child's speech is comprehensible is unrelated to his understanding. It also indicates that the way a child performs on an articulation test is not necessarily indication of how well he will articulate in other settings. Consequently diagnosing a child as speech defective on the basis of his performance on an articulation test may not be an accurate picture of his capabilities.

The Lenneburg study contains several interesting measures of the language comprehension of monogloid children, and some of his measures may be used as guides for other studies of comprehension. As previously noted, paraphrasing a sentence in an index of comprehension; parroting is not. In fact an adult will be able to parrot a meaningless string of words, but

not a meaningful sentence. Therefore, it appears that the inability to parrot a sentence can be taken as an indication of comprehension. The Lenneburg study indeed found a negative correlation between this ability to parrot sentences and the level of grammatical structure attained. The level of grammatical structure attained is an output measure. It appears that grammatical structure may aid memory.

What we seem to know so for about the language of trainables therefore, is that it's development is intimately related to motor development, that comprehensibility is not related to understanding, and that institutionalised retardates do not perform significantly more poorly in terms of total language score. It also appears that their performance on the articulation tests used in the speech defect studies may not be an accurate picture of their performance on spontaneous utterances.

The other studies examining the characteristics of the language of the retarded child deal with the educable group. And it is important to note that these subjects are of the cultural familial type. This is important because it indicates that, besides language deficits, these children also have a lack of certain types of experiences in common; the two appear to be interrelated. If we can determine what the linguistic deficits are and what the deficits in experiences are, then we ought to be able to determine how to eradicate linguistic deficits by providing the necessary experiences.

By far the most influential and pervasive theory of the linguistic deficits of the deprived is Bernstein's. He hypothesised the existence of a ''public'' language which is different in a number of specifiable ways from the more ''formal'' language of the middle class. It was hypothesised to consist of ''short, grammatically simple, often unfinished sentences, a poor syntactical construction with a form stressing the active, mood, rigid and limited use of adjective and adverbs, low order of generality of symbolism, and a low level of conceptualisation''

In a study done in 1962, he tested four hypotheses related to this theory; (a) that the codes can be distinguished, (b) that their use is associated with social class, and (c) that their use is independent of intelligence, and (d) that the public language is characterised by a smaller amount of verbal planning.

The speech of the working class person ought to be characterised by fewer pauses than the middle class.

There are theories which claim that the four functions of language of the lower class person have qualitatively different characteristics from those of the middle class person. Speech is hypothesised to be less complex both syntactically and semantically, and the theorists imply that comprehension is also similar in nature to production. They also imply that these deficits

have strong implications concerning complexity of thought. We have seen that there is indeed a social class difference with increasing deficit for the lower class child on concept sorting performance; the Batza study appears to indicate that linguistic performance of the educable group as a whole is similar in nature to younger normal children, and that within the gorup, comlexity of sentence production appears to be related to IQ.

One of the earliest of the intervention studies was that done by Smith (1962). This was an attempt to study the effects of a group language program on the language abilities of a group of deprived children. Specifically, Smith hypothesised that a language development program would enhance total language are scores as measured by the ITPA, that IQ would be unrelated to language age score gains, and that initial language age scores would be unrelated to total language age score gains.

Sixteen matched pairs (on CA and overall LA pretest scores) were used. All were students in special classes. all were between the ages of 7 and 10 and had received Binet scores between 50 and 80. Over a three month period the children were taken from their special classes into groups of eight each, three times a week for 45 minutes. They were exposed to a language program which was designed to be stimulating and enriching. Each child was urged to be an active participant in the program The lessons were planned to include a wide range of activities with visual and auditory stimuli and were aimed to decoding, association and encoding of linguistic symbols.

Decoding activities were such things as answering oral questions, carrying out instructions, and recognising objects or naming. Association activities included such tasks as relating objects to their spoken names, naming pictorial stimuli, and listening to stories and answering questions. Encoding activities included naming and describing pictured objects, rhythmic activities and finger play.

Results at the end of the three month period showed that the experimental group gained 6.75 months on the total language age score as measured by the ITPA; the control group lost four months. This is a significant difference. The mean language age gain of the experimental group was thus more than seven months over the gain of the matched control group. The experimental group showed gain for all nine subtest scores, with the greatest gains on the vocal encoding subtest (number of concepts enumerated to an object) and the visual motor association subtest (choosing a picture which has a conceptual communality to a first picture). For the control group, performance on 5 of the 9 subtests remained the same or decreased, with minimal gains shown on the other four subtests. It was found that neither IQ or initial LA was related to the LA gain.

It is important to note that the experimental group received another differential type of treatment besides the language lessons which might account for results because they were removed from their special classes for these lessons whereas the control group subjects were not. A Hawthorne effect may be operating. It must also be noted, however, that the greatest gains seemed to be made by the experimental group on subtests which were similar in task orientation as the lessons. For example, one might expect a child who had received more experience in describing pictured objects to do better on a task which requires him to enumerate a large number of concepts in response to an object. It therefore appears that the types of gains made are related to the emphasis of the lessons that the children had been exposed to.

Mueller and Smith (1964) attempted to measure whether the gains made in the Smith study were stable over time. Thirteen matched pairs from the original Smith subjects were used, and they were administered the ITPA 13 to 14 months after the original testing. The same examiner administered the test as in the first study.

Differences between the total LA scores of the Smith pretest, the Smith posttest and the Mueller and Smith Follow-up scores were compared; as we have noted the differences between the Smith pre and post test LA scores were significant, but this difference did not hold up on the follow-up test, although the experimental group still tended to score above the controls. Mueller and Smith did an analysis of the individual improvement scores and found that eight children showed no improvement while eight improved from 6 to 16 months. Further, an analysis of IQ and class placement showed no differences between these two groups, and they take this as evidence that the children were stimulated differentially by the programme. What this result implies is that three months of language stimulation is not sufficient to maintain gains over time, and this in turn implies that language stimulation programs begun in preschool are going to have to be maintained in regular classrooms if gains are to be maintained. Since the experimental group continued to score above the controls, it does not appear that language development stops when lessons do; it simply implies that the acceleration begun in the enrichment program is slowed down when it is given up.

One study which uses and at home control group and also a kindergarten control is one by Stearns (1966). He described a diagnostically based series of language lessons. The lessons concentrated in teaching visual and tactical discrimination, labels for objects in terms of size, shape, color, and increasing ranges of adjectives and adverbs and prepositions used by the children. The lessons also attempted to increase sentence length and building correct grammatical order and syntax. Lessons were based upon the capabilities and weaknesses of the children's performance; teachers used corrective feedback

techniques and general reinforcing social contact; children were asked to discriminate among familiar objects and were trained to describe features of objects.

Children were chosen on the basis of a psychosocial deprivation criteria. All had IQs of 50-85, with a mean CA of 64 months. The ITPA was administered pre. mid-term and post and in a follow up pre to mid-term and mid-term to post were not significant, but gains over the entire year were significant; the experimental group gained 19 months in total LA while the KC group gained 13 and the at home control gained 12 months. During the four months in which the lessons were given (mid-term to post), children made the greatest gains on subtests measuring meaningful level of organisation, and this appears to indicate that the greatest gains are made on those subtests which require the child to perform tasks similar to those stressed in his lessons.

In a follow-up study done one year after the post test results, gains for this period were found to be significantly smaller than the gains made over the period of the year before. Thus again the gains were not maintained, and this appears to indicate that a continuous program of language stimulation is necessary to maintain gain over time.

The last intervention study (Dunn and Mueller, 1966) concerns itself with the examination of the ability of a specific type of reading instruction to enhance reading ability and the use of the Peabody Language Development Kit in increasing oral language development and raising IQs. Three experimental groups received the ITA in isolation, the PLDK in isolation, and the two together. Group 4 was a control group.

The Initial Teaching Alphabet (ITA) cocentrates on teaching the individual sound symbols before he is taught to put them together in words and sentences. The reading program is continued in a normal way, although the teachers stress sounds in isolation and combination. The Peabody Language Development Kit is designed to stimulate oral language, and attempts to train the psycholinguistic processes of convergent, divergent and associative thinking, and vocal and motor expression through auditory, visual and motor channels. The system consists of daily lesson plans containing such activities as brainstorming. Classification critical thinking, listening, describing, conversing and memory work.

Evaluation data was gathered at pre, post and one year periods on achievement measures (the Metropolitan Achievement Test), language measures (the ITPA and PPVT), and on intelligence measures (the Binet). Findings indicated that on achievement measures, the ITA groups were clearly superior to those groups which did not receive it; and further analysis indicated that this is because of differential performance on the MAT with

the ITA groups performing significantly better on word discrimination tasks. On language age measures, specifically the ITPA, the PLDK groups were found to perform significantly better than the non-PLDK groups but not on the PPVT. On intelligence, those receiving the PLDK and the ITA in combination did better than any other group.

The experimenters note that the ITA is therefore effective in stimulating reading ability apparently because it helps develop word attack skills, and that the use of the PLDK stimulates most aspects of language skills. These findings appear to indicate that these measures are effective in combination and that sound discrimination will indeed pull up scores on achievement and IQ. It indicates what educators have long suspected that there is an intimate relation between language and learning to read, and that learning to read should be enhanced by language stimulation. The study has one flaw, and that is the possibility of the influence of a Hawthorne effect in the results because the teachers using these programmes were given many incentives for success.

Prabhu (1968) found that 44.6 per cent of the retarded had speech defects. Speech defects were significantly more among the severely subnormal. Speech defects were also more among the secondary group than the primary aments. People with hearing defects were intellectually subnormals are compared with those who had no hearing defects Abrol *et al.* (1978).

ATTENTION AND PERCEPTION

Mild mentally retarded children have low attention span. They display a global perceptual style and fail to develop simultaneous processing habits. They are mostly impulsive while perceiving the objects and act as levellers. Attention span can be enhanced by using certain specific training procedures. These children profit when tasks are short. The complexity and length of the task is slowly increased. They are trained to listen, watch, reflect, look at different aspects of the object. This can be done by using a timer 'start-stop'. Gradually time given to complete a task can be reduced. Teach them at concrete level rather than at an abstract level.

In order to improve their discrimination skills one can use repetition and matching techniques using different objects. Use of letter discrimination, form discrimination, identification of letters, patterns, finding out hidden figures, reproducing block. or design, copying figures, locating names from a telephone directory, attending to relevant cues, and concentrating on objects, discriminating sounds and symbols have proved quite useful for improving perceptual processes.

Poor information processing is among the manifestations of mental retardation. Multisensory teaching techniques have often been recommended

to improve information processing habits. For example, use of language master, motion pictures, filmstrips, talking calculators, using role play and dramatisations, tracing letters and pronouncing them are some of the techniques which are being used independently and combinedly in dealing with mentally retarded children. Piagetian tasks are also used to enhance information processing ability.

EDUCATIONAL PROVISIONS

General educational goals are applicable for the educational programmes of the mildly retarded. The academic levels of the mildly retarded in special classes were not as high as those of their counterparts in regular classes. The objectives of education for these children are self-realisation, human relationships, economic efficiency, and civic responsibility.

The following guidelines are suggested :

Level of Education	Areas of Concentration
Preschool (Age 3 to 6) —	Communication skills, self-help, and socialisation skills, perceptual experiences.
Primary (Age 6 to 9) —	Integrated school system. Special trained teachers. Development of basic skills.
(Age 9 to 12) —	Formal academic training in Reading; Written and oral communication; arithmetic; motor and perceptual development. Children should be placed in regular classes.
Secondary (Age 13 +) —	Pre-vocational training skills, formal learning. Sheltered workship situation is also recommended.

Kolstoe (1976) recommended the following steps :
1. The learning task should be familiar, and simple.
2. The task should be brief.
3. The task should be sequential containing small steps.
4. Each learning task should be aimed at bringing success.
5. Overlearning should be built into lessons.
6. Learning tasks should be applied to objects, problems and situations in the learner's life environment.

In addition to these proper motivation may also be provided for achieving success in school. This can be done by accepting the children, by rewarding them when they succeed, and by giving them social responsibility and leadership roles. The classrooms of the mildly retarded children should also be larger than the normal classroom. It should contain high-interest, low vocabulary reading material alongwith games of therapeutic value. Arts and

crafts can be used for self expression. Home and family life education may also be included in the curriculum. Parents and teachers need to use social reinforcements with these children e.g., good, fine, you are O.K.

Their language is so poorly developed that enriched language lessons are recommeded. These children may be encouraged to speak during field trips, dinning time and to describe what they do at different times.

INTERVENTIONS

One of the major trends in the education of mentally retarded children has been the additional of educational services for the EMR. The impetus for this began in the Summer of 1965 when the Head start programme was introduced by the office of Economic opportunity in U.S.A. The Head start programme was originally meant to benefit the economically deprived children but it did profit a large number of EMR who were of socio-cultural advantage rather than of organic factors.

The intervention programme in bringing cognitive, affective and psychomotor changes will be dealt here under three main subheads :
  (a) Preschool intervention
  (b) School intervention
  (c) Post school adjustment

Blat and Garfunkel (1967) studied the effect of nonautomated responsive environment on the intellectual and social competence of EMR children. In addition it was also planned to see if preschool intervention would reduce the occurrence of intellectual and academic deficits. 59 preschool children having Mean IQ 77 were assigned to two year preschool intervention programme i.e., E_1 pre school intervention in cognitive and affective process; E_2 Preschool intervention with responsive environment, and C. at home control. The experimental groups gained 7 IQ points over at home but the gains did not continue after the programme was discontinued.

Weikart (1967) reported the results of longitudinal study on the efficacy of preschool programme designed to compensate for the cultural deprivation.

Increase in IQ was not stable over period of time even though IQ gains were noticed for the experimental group. Similar was the case of language ability. But in arithmetic, reading, and language skills, and personal-social adjustment significant gains were noticed.

Hodges, Spicker and McCandles (1966) assessed the effectiveness of a diagnostic curriculum to remediate cognitive, affective, and motori deficits among culturally deprived children having low IQ and attempted to remedy the progressive deficits. 142 psycholsocially deprived children, with IQ between 50-58 were selected for the study over a three year period initially.

The three groups of children were divided into Experimental, Kindergarten Contrast, at home control with Mean IQs 73.57, 75.27, and 74.18 respectively. The experimental group received a structured curriculum designed to remedy the specific deficits of individual children in areas of language and motor development; concept formation, and socialisation. The Kindergarten groups received the traditional school curriculum and the at home control did not get any training. The EPS group had significantly higher IQ than the KG and AHC group I and the KG group was higher in IQ than the AHC group but after two years of school entrance the differences were washed out. Language ability scores had similar fate. Achievement in the first grade had been different significantly in case of EPS group personal social adjustment scores continued to be better for the EPS children.

The experimental group demonstrated higher fine motor proficiency than the KG and AHC group. However, in a nutshell it can be stated that, significant IQ gains can be made with intellectually subnormal children and the gains can be continuous if the programme is long term than a one year or two year programme and that too if the low IQ is due to other factors than brain damage. Adjustment and achievement gains are worth noticing in the intervention programme. Hence, whether preschool programmes are necessary or not has to be carefully examined before the expensive programmes are introduced in a massive scale.

SCHOOL INTERVENTIONS

The typical solution to the problems of retarded children in the public schools has been the creation of special classes in which the special needs of these children are satisfied by specially trained teachers. Comparisons have been made with similar retarded children placed in the regular classes or integrated classroom perform more adequately on standardised achievement tests and special class children received higher ranks in personal social adjustment compared to their in the regular classroom. This may arise out of placement differences i.e., good retarded children placed in regular classes and the dull among them are sent to special classes. This also can not be ruled out.

Goldstein, Moss and Jordan (1965) to avoid this defect started initially experiments upon newly created special classes or to continued placement in the regular first grade students were randomly assigned to regular or special classes—The teachers special classes were supervised and trained and attended conferences every six weeks. The results showed, IQ of both the groups varied non-significantly in the first year and levelled in subsequent years. There were no significant differences between the regular and special class placement. There were no differences in school achievement. This suggests that even under ideal conditions special class placement did not

have significant advantage over regular class EMR children. In other words, special class supplement does not seem to be academically justified in terms of cost, training of teachers, equipments, and ancillary provisions.

Cain and Levine (1963) assessed the effects of special classes for trainables in institution and community settings on the development of social competency. Unfortunately no difference was noticed between the control and experimental groups *i.e.*, at home and school going TMR children in social competency. This merely suggests that special class for the TMR may be more efficiently organised in view of the fact that they will never gain from regular class and or school placement.

Studies reported by Jordan (1960) and Johnson (1961) on sociometric index of retarded children showed that lower IQ children are more rejected and lower in social status than their brighter peers in the special class—the same pattern that exists in regular class. Majority of the studies show :

(a) There is a positive relationship between intelligence and peer acceptance.

(b) Retarded children in special classes are more often favourably chosen by their peers than retarded children in the regular grades when sociometric measures were employed.

(c) Retarded children who are segregated from their brighter peers have a significantly poorer self concept than children left in the regular grades.

(d) Social adjustment of retarded children can be enhanced by providing special social experience *i.e.*, giving leadership roles, pairing with popular children, giving some responsibilities.

Teaching, reading and arithmetic to EMR children have also been investigated but no general approach has been recommended. For example, if a child is aurally minded he profits from the phonic approach. If he is visually minded he may profit from a visual approach *i.e.*, programmed materials. In so far as arithmetic achievement is concerned it is suggested that arithmetical understanding is to be developed than mere arithmetical manipulation of symbols. Training in language ability have already been discussed in this chapter. It can be said that group language development programmes used systematically does produce significant language gains for EMR children (Smith 1962, Stearns 1967). Overlearning is to be used for enhancing learning and achievement including training the retarded to attend to specific cues.

Retarded children represent a group that is heterogenous with respect to specific abilities, motivational patterns, learning styles and strategies and social histories. Hence, any serious attempt to elicit maximum achievement from a given child while deriving benefit from what is known about retarded

children generally, will have to trigger such application with a knowledge of the specific child's response patterns and performance level.

Further, the teachers ought not to have negative expectancy as a result of the label 'Mentally Retarded' and motivate these children with reward, affection, attention approval and acceptance. These children suffer from a cloak of incompetence which has been highlighted in Edgerton's book "The Cloak of competence, Stigma in the lives of the retarded" 1967. All the children studied in this book, had a sad tale to tell. Therefore, in planning for the education and training of Mentally retardates due consideration has to be given to their motivational and need patterns and engineer programmes in the appropriate directions.

Some of the well known intervention programmes (Klauss and Gray 1968, Bereiter and Engleman 1966, Detusch *et al.* (1968), have been discussed in the chapter on underpriviledged children. These studies are significant here but will not be repeated here to avoid duplication. These studies have shown the extent to which compensatory education programmes can be used to the vantage of the EMR and culturally disadvantaged with no brain damage.

Keeping these background materials and following the evaluation of special education programmes in U.S.A. the present trend is to mainstream the retarded. *Integrated education has* become the crying need of the day if we want the disabled of any form, in a mild, degree, is to be educated.

POST SCHOOL ADJUSTMENT

Post school follow-up studies with the EMR have been conducted primarily to demonstrate that such individuals loose their identity as retardates, becoming economically self sufficient and socially adequate members of society once they become adults. A few of these studies were conducted to demonstrate that special aducational services were instrumental in helping the EMR attain successful adult adjustment. The results of most of these investigations have indicated that 80 & 85% of the EMR adults, indeed, make successful adult adjustments in unskilled and semiskilled occupations. However, these successful adjustment seem to occur regardless of whether the individual had received his education in special or regular classes. The major variable identified to date, which seems to affect post school adjustment is length of stay in school, with those dropping out early (At CA 15 or 16) less able to make a successful initial adult adjustment. However, according to the long term follow-up study of Baller, Charles, and Miller (1966), even these individuals eventually become successful members of society when compared with comparable socio-economic class intellectually normal adults.

Post school studies with TMR adults have generally found that

approximately two-thirds of these individuals had remained in the community, and that the other one-third had either died or had been placed into a residential institution. Of those remaining at home, approximately 30% worked or had worked for pay, and approximately 75% had learned adequate of self care skills and had developed sufficient social skills to get along unsupervised in their immediate neighbourhoods. Again, these attianments seemed unrelated to whether they received or did not receive special educational services.

THE MODERATELY RETARDED

These children possess IQ of 40 to 54 (Wechsler) or 36 to 51 (Binet). They are deficient in adapting behaviour, physical, motor, and language development, learning and occupational expectations, social and personality adjustments.

Children who are moderately retarded have hearing and vision impairment. Such children get tired easily and have health and respiratory infections. Language development is delayed in both understanding of spoken language. Their expected level of achievement is about 1/3rd of the normal or about six to eight years. Usually they continue upto 4th grade and they do not have independent vocational pursuits

Moderately retarded children are more dependent upon others and they do not acquire personal social skills. They do not foresee consequence and make social adjustments.

The educational provisions for these children are primarily meant for making them vocationally productive by placing them in sheltered workshops. The following programme may be followed.

Levels of Children	Areas of Concentration
Preschool (Age 3 to 5)	— Half day classes. Development of self-help skills. Speech and language development. Motor and socialisation skills.
Primary (Age 6 to 9)	— Five hours of schooling a day. Training in preschool-level skills. Development of visual and auditory skills.
(Age 9 to 12)	— Full day classes. Functional academic training. Reading, writing and arithmetic. Physical education and skill development.
Secondary (Age 13 +)	— Training in prevocational and vocational skills in sheltered workshops. Development of community relationships.

The following guidelines should be considered by the teacher (Swanson and Willis, 1979).

1. Examine the needs of the child.
2. Set realistic goals.
3. Understand the child's behaviour in relation to development.
4. Provide support during learning experience.
5. Allow adequate time for the child to complete the task.
6. Select proper stimuli to elicit response.
7. Provide consistency in discipline and supportive roles.

THE PROFOUND AND SEVERELY RETARDED

This category of children reveal substantial deficiencies in the areas of physical development, communication, self care and intellectual functioning. IQ of these children is less than 25. They remain mostly in institutions under constant care. The severely retarded group includes children between IQ range 20 to 40.

The educational provisions for profoundly retarded children are meant for the development of self-help skills or communication skills. Sensory training technique is used for these children. For the trainable, training is gross motor activities, self-help and social skills, communication skills are given depending upon the developmental level. Behaviour modification techniques and reinfocement techniques are applied for development and extinction of behaviour and teaching toileting skills. For teaching skills to these children task analysis and programming are necessary. They are further trained in sheltered workshops.

In recent years, there has been emphasis on the education and care of the educable mentally retardates in India. Attempts are being made to open special schools for these type of children and train teachers to handle these children. However, the sole objective is mainstreaming the retardates into normal schools. In severe cases where mainstreaming seems entirely difficult, special institutions have been recommended.

REVIEW EXERCISES

Answer within 500 words each :

1. What is mental retardation ? How has it been defined by A.A.M.D. ?
2. What are the procedures for identifying a mentally retarded child ? Explain the testing procedure for different types of retarded children.
3. What are the learning and memory characteristics of EMR children ? How would you remedy the defects ?
4. What are the physical and motor characteristics of the EMR children ? How

would you intervene the deficiency ?

5. What are the social and emotional characteristics of the EMR children ? What measures would you take to help them ?
6. What is the nature of creative thinking in Mentally Retarded Children ?
7. What are the motivational characteristics of EMR children ?
8. What are the various instructional techniques used for helping the retarded child ?
9. What are some of the special educational measures used for mentally retarded children ?
10. Write notes on—Trainable Mental Retardation, and profound and severely retarded.
11. Write a note on etiology and prevention of Mental Retardation.

Write notes on the following in about 50 words :
1. Down's syndrome
2. Rh incompatibility
3. Microcephaly
4. Hydrocephaly
5. Modrately retarded.

Fill in the blanks :
1. The EMR child is unable to retain things for a.........time.
2. The EMR child needs.........learning to retain things for longer time.
3. The MR child has to be initially taught by.........method.
4. The EMR child cannot.........gratification.
5. ....deficit accounts for a great deal of learning deficit.
6. Self concept of the EMR is better under.........setting.
7. The mental Deficiency Act was promulgated in England in..........
8. A.A.M.D. definition of MR was given by..........
9. A.A.M.D. adaptive behaviour scale was developed by.........
10. EMR children are poor in..........muscular coordination.

Write whether the statements are True of False :
1. There is a positive relationship between IQ and peer acceptance.
2. Special class placement leads to better educational achievement of MR children.
3. The severely or profoundly retarded cannot be taught self help skills.
4. Integrated education is most effective for mildly retarded.
5. Mental retardation can be prevented by and large if detected early in development.

20
Emotionally Disturbed Children

Who is an emotionally disturbed child ? Emotional distrubance can be viewed from a variety of perspectives. In the past emotionally disturbed children were viewed as autistic like. They were confined to institutional program and were under residential care. Very few of them received schooling if at all. After 1975. When the handicapped children's act was passed there developed a new interest for education of the emotionally disturbed in a separate school. The other view which is prevalent is main streaming or integrating the emotionally disturbed into a notmal environment. In many cases there is no such clearcut decision regarding the care, treatment ad education of emotionally disturbed.

There are different ways of defining an emotionally disturbed child. For teachers, an emotionally disturbed child is one who is shy, withdrawn and who is aggressive and acting out. In addition, emotionally disturbed behaviour was considered synonymous as misbehaviour or deviancy. By deviancy it is meant that "a student takes actions which are prohibited by teacher". In this definition the locus of the problem was on the norms of the school but a different kind of definition was then given in terms of the ecology of the child. According to this emotional disturbance is viewed in terms of environment variables which create meladaptive emotional reactions. For example, the frustrating environment in the school or such other unfavourable circumstance.

Beside teacher, the peer group also considered certain behaviour to be problem behaviour. According to this definition a child who cannot make interpersonal adjustment with his age mates is considered as a disturbed child.

The child's sociometric relationship was considered declining if he is emotionally disturbed.

The parents and others have their own conception of emotionally disturbed child ? For the parents, the child's role in the family sometimes

becomes a scapegoat and the problem is created because of marital conflicts and needs of the parents. In other words, emotionally disturbed parents produce emotionally disturbed children.

On the whole, who should be considered as an emotionally disturbed child ? The term refers to a condition exhibiting one or more of the following characteristics over a long period of time and to a marked degree that adversely affects educational performance (a) an inability to learn that cannot be explained by intellectual, sensory or health factors, (b) an inability to build and maintain satisfactory interpersonal relationship with peers and teachers, (c) inappropriate types of behaviour or feelings under normal circumstances, (d) a general and pervasive mood of unhappiness or depression, (e) a tendency to develop physical symptoms or fear assciated with personal or school problems. This particular term emotional disturbance with all his emotional and behavioural characteristics does include Schizophrenic and autistic characteristics.

It does not include the socially maladjusted unless serious emotional disturbance is accompanied with social maladjustment.

A child is emotionally disturbed when his reactions to life situations are unrewarding to himself and unacceptable to his peers and other members of the society. These children lack flexibility to modify their behaviour. They are too excitable or to withdrawn, too brave or too fearful. For teachers, a child is emotionally disturbed when he would be disrupting the whole class, would place undue pressure on the teacher, and disturb the general school atmosphere. The American Psychiatric Association defined emotional disturbance as follows : "It is a type of Psychiatric disturbance without clearly defined physical cause or without structural damage to the brain". In general, emotional disorder or disturbance in children can be defined in terms of certain observable characteristics such as : "hyperactivity, withdrawn behaviour, failure to achieve at a level reasonably commensurate with ability, tendency towards fighting, and other aggressive behaviour, resentment and antagonism towards authority and rules and regulations, and general problems in learning and concentrating not associated with known organic or sensory defects" (Phillips, 1967). Hence, an emotionally disturbed child is one who shows to an extreme degree one or more of the characteristics listed above.

Emotional disturbance is not distributed evenly in all age groups, sex and social goups. The behaviour problems are maximum during early puberty and these are found earlier among girls than among boys.

Parents having services and semiskilled occupations have more emotionally disturbed children compared to parents who hold professional, and skilled occuptions.

CHARACTERISTICS OF EMOTIONALLY DISTURBED

Emotionally disturbed children are often seen as unpredictable that present serious problems. In a study, Weinstein (1965) utilised the concept of social disturbance and had children orgnised social stimuli in replacement soical situation. It was found that the emotionally disturbed children in contrast to the normal group placed the human figures far apart than they did the rectangles. In case of the normal children it was just the opposite. From this study it was obvious that these emotionally disturbed children did have close emotional proximity with their parents and had negative self concepts.

Failure in school is often thought to be a symptom of neurotic behaviour. Further, the self of the disturbed child is invariably negative. When self-evaluation questionnaires are given to these emotionally disturbed children, they saw themselves as less likeable, less able to arouse affection in others, they are either psychotic or emotionally indifferent. For this reason, quite a few programmes have bee designed on classroom organisational pattern so that these children can fucntion to their maximum but the research evidence ont the learning characteristics of the emotionally disturbed children show lack of interest in academic matter and school performance, lower I.Q. and achievement. Their reading and mathematics achievement is significantly below the average. The majority of the studies demonstrate however, that emotionally disturbed children as a group has a little less than average intelligence. But primarily their personality and behavioural traits contibute maximum to discripant achievement in reading and arithmetic achievement.

Tayler has found seven factors contributing to achievement :
Ability to handle anxiety,
Feeling of self work,
Conformity to demands,
Peer acceptance,
Less conflict over independence,
Engagement in activity of academic nature,
Setting of realistic goals.

The emotionally disturbed children lack most of these attributes. Coleman and Sandler (1967) highlighted the interaction of emotional status, intelligence age, and sex in relation to learning. This study shows that emotional disturbance and normal behaviour sometimes overlaps.

Studies on the learning of emotionally disturbed children further show that these children are resistant to remedial effect because of the extreme defensive nature. One of the consistent findings that has come up both from descriptive and survey studies is the progressive decline in reading and arithmetic achievement as children identified as emotionally disturbed progress through the grades. This also contibutes to diminished feelings of

self-regards as children progressed in school. In one of the studies at the university of California, Bower and his associates showed that the difference between emotionally disturbed and normal children is more between grade IV and VI. In another study by Feldhusen and associates (1967) it was found that the emotionally disturbed child is aggressive, destructive and also far behind in reading and arithmentic achievement specially before grade III. That is why attempts are made to group emotionally disturbed children into different categories such as schizoid, character disorder, borderline and psychoses, somatic complaints. Similarly these children have reading skill deficiency, deficiency in word recognition, perceptual deficiency, visual deficiency, memory and hyperactivity. All these characteristics are responsible for problem behaviour.

IDENTIFICATION OF EMOTIONALLY DISTURBED CHILDREN

How do we identify emotionally disturbed child ? Generally the Illinois test of psycho-linguistic ability, measures of auditory closure, right left discrimination, eye hand co-ordination etc. tests are given. Much of the pathology of the emotionally disturbed child is due to the fact that these children cannot delay gratification and have poor in pulse control and a disturbed time sense. They further manifest learning deficits on manageable behaviour, feeling of failure, diminished self-esteem and lack of communication with adults arising out of school failure. These behaviours are manifested in the child's day to day environment.

It is more important to know the way through which the emotionally disturbed children learn than what they learn. It has been found out that the emotionally distrubed children learn using an impulsive strategy or what other boys known as a rapid tempo with uncritical response. They are quite hyperactive and they have attention and motivational deficits rather than cognitive deficits.

The following behavioural characteristics are very effective in screening emotionally disturbed children, (Pate, 1963).
1. Needs an unusual amount of prodding to get work completed.
2. Is inattentive, indifferent, or apparently lazy.
3. Exhibits nervous reactions such as nailbiting, sucking thumb or fingers, stuttering, extreme restlessness, muscle twitching, hair twisting, picking and scratching, deep and frequent sighing.
4. Is activity excluded by most of the children wherever they get a chance.
5. Failure in school for not apparent reason.
6. Is absent from school frequently or dislikes school intensely.
7. Seems to be more unhappy than most of the children.

Criteria	Normal	Problem	Referrable
A. Intensity — How disruptive of the child's other activities is the problem behaviour?	**Non-Disruptive** — Behaviour does not interfere with the child's other activities.	**Disruptive** — Behaviour interferes with the child's other activities.	**Extremely Disruptive** — Behaviour completely disrupts child's other activities.
B. Appropriateness — Is the behaviour a reasonable respose to the situation?	**Reasonable** — Response is acceptable or expected for the situation.	**Inappropriate** — Response is undesirable for the situation.	**Excessive** — Response is out of production to the situation.
C. Duration — How long does the behaviour episode last?	**Short Lived** — Episode lasts only a short time (short time within a class period)	**Moderately Long** — Episode extends over a longer period (some carry over from one class to the next)	**Long-Lasting** — Episodes are long lasting (greater part of a day)
D. Frequency — How often does the behaviour occur?	**Infrequent** — Behaviour usually is not repeated (rarely repeated in a day : rarely repeated on other days)	**Frequent** — Behaviour is repeated (may be repeated several times a day; may be repeated on several days)	**Habitual** — Behaviour happens all the time (repeated often during day; repeated on many days)
E. Specificity/Generality — In how many types of situations does the behaviour occur?	**Occurs in Specific Situation** — Behaviour occurs in specific type of situation	**Occurs in Several situations** — Behaviour occurs in more than one type of situation	**Occurs in Many Situations** — Behaviour occurs in many type of situations
F. Manageability — How easily does the behaviour respond to management efforts?	**Easily Managed** — Responds readily to management efforts.	**Difficult to Manage** — Inconsistent or slow response to management efforts	**Cannot be managed** — Does not respond to management efforts.
G. Assessibility of Circumstances — How easily can the circumstances that produced the behaviour be identified?	**Easily Assessed** — Easy to identify situation or condition producing behaviour	**Difficult to Assess** — Situation or condition producing behaviour difficult identify	**Cannot be Assessed** — Cannot identify situation or condition producing behaviour

	No Deviation from Level of Class	Below Level of Class	Considerably below level of class
H. Comparison with Maturity Level of Class How close to the norm of the class is the problem behaviour?	Behaviour is par for the group.	Behaviour is below the group level.	Behaviour is considerably below the group level.
I. Number of Problem behaviours exhibited.	Rarely more than one	Usually more than one	Usually many and varied
J. Acceptance by Peers Does the child have difficulty being accepted by peers?	**Accepted** Is accepted by peers	**Had Difficulty Getting Along** May have difficulty with particular individuals	**Not Accepted** Unaccepted by group.
K. Recovery Time How quickly is the situation leading to the episode forgotten?	**Rapid** Gets over episode quickly	**Slow** Gets over episode more slowly	**Delayed** Does not get over episode.
L. Contagion 1. Does the behaviour disrupt the activities of others? 2. Do others copy the problem behaviours?	**Little or no effect on others** Behaviour does not disturb or does not serve as a model for others	**Considerable Effect on Others** Behaviour disturbs immediate neighbours or neighbours copy behaviour	**Excessive Effect on Others** Behaviour disturbs whole class or whole class copies behaviour
M. Degree of contact with Reality Does the behaviour represent a loss of contact with reality?	**No Confusion between Real/Unreal**	**Some Confusion between Real/Unreal**	**Confuses Real/Unreal**
N. Response to Learning Opportunities How readily does the child respond when learning opportunities are provided?	**Responds Positively** to Enrichment/Remedial Work	**Responds slowly or weakly** to Enrichment/Remedial Work	**Does not Respond** to Enrichment/Remedial Work

8. Achieves much less in school than his ability indicates he should.

9. Jealous or over copetitive (Kaugh & Deltaan, 1955, p. 52).

Screening procedures can be more intricate and perhaps more accurate by addtion of teacher rating, peer rating, self-ratings, using standardised personality tests and inventories. There most widely used tests are : California Psychological Inventory, Edward's Personal Preference Schedule, Minnesota Multiphasic Personality Inventory. Very few tests are available for use at elementary level or when children are quite young. However, children's Apperception, Test, Thematic Apperception Test, WISC and Bender Gestalt tests can be used quite effectively for identifying emotionally disturbed children.

What are the characteristics of severely emotionally disturbed children ? They are labelled as autistic, psychotic or scizophrenic. There are 14 different ways of classifying behaviours. These are as follos :

In a survey conducted by the National Istitute of Mental Health it has been observed that nearly 1.5% of population i the age group of 0-21 suffer from emotional disturbance.

TYPES OF EMOTIONAL DISTURBANCE

Autism : Autism in children is one of the most severe forms of emotional disturbance. This is also otherwise known as childhood schizophrenia. This condition is presented with and is followed by delay in speech development, non-communicative use of speech, and withdrawal tendencies. They do not use language to convey meanings.

In a recent book Kauffman (1977) states ''attempts to pinpoint the origin of behaviour disorders in family relationship have met with little success. Family relationship are best viewed to as contributing to behavioural development. From another point of view autism in children may result purely out of language impairment and language training. It has been possible in reducing the occurrence of autism in children clinically. Many of the psychiatrists also treat autistic children and have made them quite acceptable.

PSYCHOSIS

This is the most severe ad debilitating of the emotional disturbances. Psychotic children have no contact with reality. Childhood schizophrenia is quite commonly seen. In early infantile autistic children, we find extreme withdrawal, peculiar communication, and improper use of language. They only react to their own private imaginary scheme of life.

PSYCHOPHYSIOLOGICAL DISTURBANCE

These disorders result in physical malfunctioning but without any anxiety. These children have severe eczema, asthma without emotional overlay. They also exhibit anorexia nervosa, persistent loss of appetite, and are underweight. They have painful migraine. They mostly need medical treatment.

PSYCHONEUROSES

In this type of disorder certain functions are distorted but the child is not isolated from reality. It is said the psychoneurotic child builds air castles and the psychotic child lives in them. Many children are cautious, frightened and show uncontrollable crying etc. They have phobias, manias, ponic syndrome, and conversion.

PERSONALITY DISORDERS

These children cannot adjust to society. They are extremely shy. They have delusions of persecutions and are rigid. They lack the resiliency to develop better ways of meeting emotional problems and sometimes they appear as too outgoing. They feel no tension or anxiety.

TRANSIENT SITUATIONAL PERSONALITY DISORDER

These children reveal acute reaction to catastrophic or unpleasant incidents such as : death of a friend, relative, accidents, etc. These are situational and are responsible for chronic and acute personality disturbance, often attributed to traumatic or distressing circumstances.

CAUSES

There are a variety of reasons for emotional disturbance. Most of them are psychonalytic and a few of them are explained by learning. The psychoanalytic caustions include : anxiety as a source of emotional disturbance, distrust of children on adults because of traumatic experiences, frustration of libidnal desires, parental rejection, punishment, ridicule, and insecurity derived from lack of affection or social prestige. Emotional disorders are explained by learning psychologists using conditioning. The same disorders are also reduced by counter conditioning or reconditioning.

EDUCATIONAL PROGRAMME AND TREATMENT

There are various methods of treating emotionally disturbed children. Emotional catharsis is a psychotherapeutic technique which is used quite often. In this technique the causes are known, these are released through expression and acceptance and the symptoms are extinguished. The other technique is interference through counter-conditioning, deconditioning, desensitization, etc. The latter method emphasises positive growth and

relearning rather than the more extinction of pathological behaviour. The Rogegerian method of non-directive counselling is very fruitful in such problem situations.

The educational programmes should be pllaned quite cautiously for these children. It may be of four different types :
  (a) Privately sponsored day schools,
  (b) Special classes in residental psychiatric centres,
  (c) Special classes in out patient mental health centres,
  (d) Special classes in regular school.

In our country, the first and last seem plausible for introduction. However, a few ideas are of great use in making educational provisions for the emotionally disturbed children.

1. Structuring limits in the class room receives first priority. The classroom atmosphere should be more than negative restrctions. The classroom atmosphere must give support and direction to activities. Out of emotional chaos order will emerge among these children.

2. There is no value in concluding that emotionally disturbed children are educationally retarded. Subject matter itself should convey appropriate information for social and academic learning. These children should be give selected bibliography or references or readings and bibliotherapy has been established as an effective therapeutic and educational tool.

3. Group dynamic principles may be used for disturbed children e.g., scating arrangements, position of teacher, and pupils can be designed to encourage desired interactions between teachers and pupils, and among pupils.

4. Directed group activity can be used. This will break inhibitions. Role playing is also another technique for release of emotional porblems.

5. Involve the child in work as soon as he reaches the school or when he is at home in any work. This way he will not get time for 'horse play' or day dreaming.

6. Offer support and reward when they do good work; never attack the child as a person; focus correction on actual task and keep relationship task centered.

7. As the child increases in responsibility and self direction, plan for more long range activities but with manageable steps.

Emotional disturbances are just like any other problem. These are not unsurmountable. Parents and teachers can help child reach firm, strong, and self directing decisions. These decisions can be built into their daily

experiences and lessons. These are merely a few suggestions.

No attempt has been made here, to offer a complete set of practical and theoretical guides for dealing with the emotionally disturbed children.

Integration of emotionally disturbed children into regular schools : The council for exceptional children in U.S.A. has recently published in a statement, highlighting the major intentions of mainstreaming :

1. Providing the most appropriate education for each child in the least restrictive setting.
2. Looking at the educational needs of children instead of clinical or diagnostic levels.
3. Looking for and creating alternatives that will help general educators serve children with learning or adjustment problems with regular setting.
4. Utilising the skills of general and special education so that all children may have equal educational opportunity.

However, the recent researches show quite disappointing consequences although the normal children in the classroom do respond quite favourably to the emotionally disturbed children. But the success of the programme depends more on facilitating different types of children. There are various interventions which aim at reducing emotional problems combinig educational and psychological developments of child at appropriate stage of development. But unfortunately group treatment of these cases have not been very rewarding.

Cognitive styles approach to emotionally distrubed children : It may be a worth while stage to combine the perceptual ability of such children with their learning ability because such children show impulsive behaviour which is not conducive to learning. Attempt to make them more reflective and less hyperactive. Secondly, they should have less anxiety and trauma in dealing with a particular learning situation. It has been suggested by Hunt (1964) that a changed model to be applied for emotionally disturbed to learn and adjust in a better way. By a changed model it is meant a set of logically derived statements of the "if and them" variety which are conditional upon the development stage of the person with whom one is working. Thus if we know the present stage or conceptual level then we can derive the specific environment most likely to produce progression for the person. The issue is not which environment is bets but rather which environment is most likely to produce a desired effect for a specific person or persons that educational environment such highly organised or completely free classrooms are differentially effective with students of varying personality or abilities, is widely recognised. Our attempt here is to coordinate and match the environment and person most effectively by use of a theoretical model. The

theoretical model is given below.

Stage	Characteristics	Optimal environments
Subtage (I)	Impulsive, poorly socialised, egocentric and inattentive.	Accepting but firm, celarly consistent with minimum of alternatives.
Stage (I)	Complaint, dependent on authority, concerned with rules	Encouraging independence within normative-structure.
State (2)	Independent questioning and self-assertive.	Environment highly autonomous with numerous alternatives and low noratives.

This above model is meant to provide specific environment to deal with specific characteristics of emotionally disturbed child in the normal classroom. Many of the problems of learning of emotional disorders can be reduced by following the procedures outlined here. The frequency, persistence, and intensity of behaviour must be taken into account.

REVIEW EXERCISES

Answer each question within 500 words :
1. Who is an emotionally disturbed child ? How would you define him ?
2. What are the procedures for indentifying an emotionally disturbed child ? State some behavioural signs.
3. What are the characteristics of emotionally disturbed children ?
4. How would you control emotional disorders among children ?
5. What are the different categories emotional disturbed ? State the criteria of classifying them.
6. What are the causes of emotional disorders ?
7. State the educational programmes and treatment for the emotionally disturbed children.

Write the answer in about 50 words :
1. Psychosis
2. Infantile antison
3. Psychoneurosis
4. Five identification marks of emotionally disturbed
5. Hyperactivity

Write whether the statements are True or False :
1. Emotional, disturbance is not over at all ages.
2. The childs sociometric relationship declines if he is ED.
3. ED children lack flexibility to modify their behaviour.
4. ED children have no ability to handle anxiety.
5. ED Children are jealous and over competitive.

6. ED children are more conforming type.

Fill in the gaps :
1. ....is the most severe form emotional disturbance in children.
2. Provide appropriate education to the ED child in the..........restrictive setting.
3. An...........environment is conducive for the growth of emtional disturbance.
4. The behaviour of ED children reflects a loss of contact with..............
5. The ED children can easily be...........to the regular classroom.

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Gifted Children

Definitions of Giftedness vary widely. Even concern for the education of the gifted children existed in the ancient Greek and Roman periods. But very little systematic improvement occurred until the latter part of the 19th Century. Attention on the understanding and education of Gifted children was focussed with the publication of Galton's Hereditary Genius (1869) and Lombroso's The Man of Genius (1891). In these days genius and insanity were thought to be closely associated.

After the advent of Binet IQ tests in 1905 and the famous longitudinal study of the genius by Terman (1925), emphasis on the gifted became more prominent and especially after 1950 there has been a renewal of interest in the gifted and talented.

The Kothari Commission made a few observations regarding the planning of education of the handicapped as well as about the gifted children. They expressed concerns that facilities for the training of the gifted is not available in our country at the moment and should therefore be planned.

In fact, the number of gifted persons are not very large but the problem is how to define or know who is gifted ? Psychologists in the United States began to define giftedness in terms of IQ. In other words, a child whose IQ is 137 or above is considered gifted, determined on the basis of standardised intelligence test. The cut off point beyond which a child will be considered as gifted differed from expert to expert but on the average the child should have IQ at least of 130 points. This rule of thumb may differ slightly from culture to culture. Somehow or other IQ only did not appeal to the modern researchers as the sole characteristic of the gifted.

The U.S. Federal Registrar (1975) defined it in a more comprehensive way which included superior intellectual, academic, creative, arts, creativity and cognitive ability. In any case, the term can be explained by considering the characteristics that identified gifted children display.

There are several interchangeable terms used in the field of gifted.

Intellectual giftedness, academic giftedness, creativity, talent. Intellectual giftedness can be described as an unusual ability to deal abstract and symbolic learning. They may or may not do well in school. Academic giftedness involves the skills and abilities necessary to perform well in school related tasks. These skills and abilities are memory, logical reasoning and ability to make meaningful associations of facts and ideas. These children have convergent thinking. Creativity refers to an original or unique creation of products or ideas. Talent can be defined as an unusually high aptitude, ability, or level of performance in a particular field *i.e.*, art, music, literature, social, etc. There is much of overlapping in these concepts but giftedness or gifted children refer in general to a group of superior mental ability group.

What then is giftedness ? Gifted are those children whose cognitive abilities place them in the upper 3 to 5 per cent of the population. The academically gifted has an IQ of 130 or above. The gifted children have superior cognitive ability, creativeness in thinking and production and superior talent in special areas. According to Guilford (1950), ''the gifted are those students whose potential intellectual powers are at such a high ideational level in both productive and evaluative thinking that it can be reasonably assumed, they could be the future problem solvers, innovators, and evaluators of the culture if adequate educational experiences are provided''.

Approximately 3 to 5 per cent of children population are gifted. Development of this potential is dependent upon the combined efforts of the family, school and community. The incidence of giftedness is equally present in males and females.

CHARACTERISTICS OF THE GIFTED

The gifted children display certain superior abilities in people from different cultural backgrounds.

1. Performance is better in specific problem solving tasks.
2. Greater reasoning ability displayed in problem solving.
3. Action oriented.
4. More productive in individual and small group situation.
5. High aspiration for prestigious occupations.
6. High motivation for physical activities.
7. Learning by visual mode is better than auditory mode.
8. Display goal oriented behaviour.
9. Perseverance is very high.
10. Analytic perceptual ability.

The gifted children have above average physical development. They

mature earlier. Baldwin conducted body measurements of 594 children of Terman's gifted group IQ ranging from 130 to 189 (Terman, 1925). These children appeared to be physically superior to the comparison group. Terman (1925) obtained the following physical measure of children :

1. Greater weight at birth.
2. Earlier walking and talking.
3. Earlier pubescence.
4. Precocius detention, early in stage of development.
5. Better than average nutrition.
6. Greater height, weight, strength of grip and shoulder and hip width.
7. Superior motor ability.
8. Less defective hearing and mouth breathing.
9. Less stuttering and nervous symptoms.

Gifted children are academically superior as revealed in learning ability. They usually learn faster, remember it for longer time than the average or normal children. They are highly motivated and have strong drive or initiative in undertaking challenges in intellectual work. Their language and communication is high. The mathematical and reasoning abilities are of superior standard besides creative arts and experimenting nature. They often ask curious questions. They have more of persistence and concentration.

The gifted children are well adjusted in home and in school. They are emotionally fairly stable and self-confident. They display a positive self-concept. Their play and leisure time activities are wide and varied.

They are quite resourceful. These facts are self evident from the studies of Terman and his associates (Terman and Ogden, 1969).

The gifted children are well accepted in the class. They have a good socio-metric index. In special cases, they display special talents in arts, music, painting etc. Giftedness is found without variation in sex.

The gifted are free from serious maladjustment problems. However, some of the extremely gifted may have adjustment difficulties. They are readily accepted by others in their social behaviours. They are well liked by peers and teachers and they participate in large number of social activities.

They like companions of their own level and who are slightly older than them. They have diversity of interests throughout their lives. They pursue various hobbies and leisure time activities. They are not reclusive, introverted or disinterested in their communities.

In the field of learning the rate of the learning is fast and remembering is for longer time. Their language development is refined and elaborated. They display independent and original thinking, and high problem-solving ability. They exhibit novelty in expression. These children have the ability

to delay gratification. They should therefore be weaned from excessive immediate rewards. They have great range of interests.

IDENTIFICATION OF THE GIFTED

There are 20 clues that indicate giftedness :

1. Level of learning of these children are equivalent to or expected of the older students.
2. Reading starts at an earlier age.
3. Awareness of uncommon things.
4. High ability for symbolic thinking.
5. Curiosity behaviour.
6. Large vocabulary for the age level.
7. Matured expressive ability.
8. Ability to apply knowledge in unfamiliar situations.
9. Good problem solving ability.
10. Longer attention span.
11. Dislike for a rigid time schedule.
12. Annoyance with details.
13. Intensive interest·in one area.
14. Diverse interests.
15. High energy level.
16. Self-critical and higher aspiration level.
17. Thinking is faster.
18. Poor study habit leading to careless work in certain cases.
19. Requires fewer trials to learn.
20. Extraordinary memory.

No child of course would reveal all these identifiable behaviour but these are by and large present in the gifted. Some can be observed more readily and in informal settings. However, giftedness have been identified using testing procedures from quite an early age and in fact, early identification is necessary.

Use of individual IQ tests is only a part of the comprehensive assessment programme. It measures cognitive ability. The Stanford-Binet and Wechsler scales are used to assess intelligence. In addition to this, teacher's observation also plays a significant role. To aid the teachers to identify gifted children Renzulli and his associates (1971) suggested a scale which consists of four areas of behaviour.

(a) **Learning Characteristics**
(i) advanced vocabulary for age and grade level
(ii) independent reading habits, prefers advanced level books

    (*iii*) quick mastery and recall of factual information
    (*iv*) grasp of underlying principles, ability to make valid generalisation

  (*b*) **Motivational Characteristics**
    (*i*) self starting
    (*ii*) persistence in task completion
    (*iii*) striving for perfection
    (*iv*) bored with routine tasks

  (*c*) **Creativity Characteristics**
    (*i*) greater curiosity among many things
    (*ii*) greater originality in problems solving
    (*iii*) less concern with conformity

  (*d*) **Leadership Characteristics**
    (*i*) self confidence and success with peers
    (*ii*) ready shouldering of responsibility
    (*iii*) easy adaptations to new situation and change in time table

Physical characteristics can be included in this rating schedule.

The teachers can make use of this checklist and arrive at early identification of the gifted. The children's divergent and convergent ability can also be tested using creativity tests. Of course, moderately low relationships exist between creativity and IQ.

The type of identification procedures recommended by Marland (1972) is given below in order of preference :
1. Individual intelligence test
2. Previously demonstrated accomplishments
3. Teacher observation
4. Group achievement tests
5. Scores on creativity tests
6. Group intelligence tests

Caution must be exercised if any single index is to be used for identification of the gifted.

To determine intelligence level standardised intelligence tests such as : Stanford-Binet, Wechsler, (WAIS, WISC, WPPSI). Progressive matrices, Otis quickscoring test, Cattell's intelligence scale, primary abilities tests are used, depending upon the age level and culture in which the child to be identified is born. Although giftedness can be aroused at any stage of development, yet it is during the school period that has meaning and significance for identification.

To assess special aptitude etc. tests of differential aptitude, Seashores's musical talent test, interest inventories, reading readiness and achievement

are usually administered individually. Parents' reports about the growth and developmental characteristics at different age levels also offer clue for such identification. As a matter of fact, teacher's record of pupil behaviour systematically using a checklist of behaviour expected provides comprehensive, objective and overall impression about the children and enable one to draw viable conclusions, regarding presence or absence of gifted characteristics. Recent years also noticed use of creativity tests to supplement the identification of the gifted.

EDUCATIONAL PROVISIONS

Educational provisions consist of early admission of the gifted to provide school experiences as early as possible. Other practices currently used in different schools are described below.

A. NON-GRADED CLASSROOM

Non-graded classroom is more appropriate for the gifted. The system is like this. The entire course of study in a level of education is divided into a series of units or stages. These are sequentially arranged. Each child in this system is given freedom to complete the requirements of each stage and go on to the next stage at his own pace. This way the duration of the school year can be sufficiently reduced for the gifted in view of the fact he completes the course quite early. This is quite popular in the elementary school years in U.S.A., U.K. and Canada. It appears that this procedure is based on the principle of learning according to ability and its management and monitoring is done through computer and not much of classroom teaching is involved in this system. Tutorial classes are meant to solve some specific learning problems.

B. SPECIAL SCHOOL FOR THE GIFTED

Another alternative approach has been to think of providing special treatments to the gifted in the form of opening a special school for the gifted, having a special class in the normal school for teaching the gifted, partial segregation etc. There are schools earmarked for the gifted in USA but in a country like ours it would be quite difficult for establishing separate schools for the gifted. The constraints may be in less number of gifted children, the linguistic variability, the national ideal for providing education for all. But we have certainly systems of identifying good students who may be kept under the gifted category and send them to residential public schools or Government schools at State expense.

C. SPECIAL CLASS IN A REGULAR SCHOOL

There are special classes in the regular schools for the gifted. For the pupose of instruction they sit in the separate room but for social and recreational

activities they are kept with remaining students in the school. This permits both academic and social habits to grow. The results of these ability grouping are controversial and unclear. There is a danger of self fulfilling prophecy both academically and psychologically. The teachers of the gifted must be specially trained, specially talented and competent in their fields. Children's intrinsic motivation should be encouraged.

D. GRADE SKIPPING

Grade skipping or double promotion was a technique to help the gifted to go to next higher class without proceeding through the normal school requirements on the belief that the gifted child will have no difficulty in delivering the goods in the higher class by skipping the immediately preceding one. This practice was in vogue in public schools and in Government, primary schools but the practice is decreasing in view of the fact that it leaves a gap in knowledge acquisition and allowing the child younger in age to mix up with higher group is not meaningful from social personal adjustment point of view.

E. EARLY ADMISSION

Early admission of gifted children has been in practice in western society to the extent of 6 months to one year on the assumption that the children identified as having higher IQ can keep up with the curriculum demands of the class even though their age is below the requirements of that level. In India such concessions are not yet given. On the contrary, if a bright student does not reach age 14 he is not allowed to sit for school certificate examination even though the child is a position holder in the class.

F. ADVANCE PLACEMENT AND CREDIT SYSTEM

Credit system at the secondary and college level takes care of the gifted. Under this system, a degree requires certain hours of course work prior to examination would be necessary for each student. The gifted child can take and often manages more credit in the same time compared to average and slow learning children. As a result he completes a level earlier than other but by satisfying all requirement except for the age required. Graduate and undergraduate schools in Western countries now operate on credit system for all the students.

Arguments are given also against such acceleration procedures on the grounds that mental maturity does not go well with physical, social and emotional maturity. The child may not keep up ahead of in later years when the course demands are high. But if we accept these facts based on insufficient research evidence, we cannot or should not think of education of the gifted.

G. MAINSTREAMING OR INTEGRATED EDUCATION

These programmes might create a feeling of discrimination among other children but this is what that can be done for the gifted. In fact, there are enrichment programmes for the slow learners and disabled. Hence, there should not be any such feeling that the gifted child gets a feel of superiority because of the enrichment programmes. In fact, at the same time the slow learner's may be undertaking the remedial programme. Hence, enrichment programmes are more realistic.

As an educational procedure, providing more meaningful and interesting experiences in the regular classroom seems to be least controversial of the various procedures for educating the gifted. There is also the least costly step and is practised using independent study procedures.

H. ENRICHMENT PROGRAMME

Whenever acceleration and segregation system do not operate there one is left with the alternative for using enriched materials. Enrichment programmes may consist of :

(a) Provision of instruction in music etc. in leisure time
(b) Introducing such students to good speakers, new and interesting elective courses
(c) Encouraging them to undertake activities of their interest, participation in debates, competitions etc.
(d) Making provision for individualised instructions with a view to increasing their self expression, skills of enquiry.

Myres (1961) has developed 20 exercises for developing creative abilities of the gifted children. Some of these are (a) combining ideas and elements—try to think of animal that never does...that might exist in another...(b) exploring possibilities—write as many as possible for...(c) what do you suppose would happen, if some one discovered that there is...write consequences (d) analyses ideas—what would happen if first names are not to be given until one is grown up...(e) seeing relationships—what possible relationships can be there between the following pair of things...Cocacola-forest fire (f) sensitivity and awareness—sit silently and answer are these things around you which you have never noticed before ? Similar exercises can be used by the teachers and parents to accelerate the intellectual development of gifted children.

They should further be made free from peer group pressures while making judgement; and develop independent work skills and habits. Emphasis need also be given for development of critical evaluation and tolerance for different opinions with a view to examining it more carefully.

I. SPECIAL TEACHING METHODS

Teachers in the integrated classroom should be aware of the gifted child's feeling of isolation—feeling alone in a crowd. There is a need to use flexible grouping to match nearly the different development level so that they display similar interests. They sometime face difficulty to accept mistake as other have high expectations. They should be helped to set realistic goals and avoid unnecessary anxiety. They should be made to realise that in classroom convergent thinking is more sought for whereas in specific situations divergent thinking is well appreciated. They should not be unnecessarily concerned with morale and social issues. They should be helped to develop an attitude of acceptance and tolerance of others.

It is desirable to motivate an under achieving gifted for which there is no simple solution. Alternative learning styles, exposure to texts and other materials, avoiding drill and repetitive activities, limiting directions, developing a cooperative attitude are some of the sound practice. Allowing them inquiry skills, and organising independent study are some other modalities for motivating the gifted.

The effectiveness of the special educational provisions for improving the achievements of the gifted would depend upon a variety of personal; the teachers, the parents, the psychologists and community's encouragement and participation in the programme. Current interest in the education of the gifted indicate only a promise for future success but the programme needs constant evaluation and modification.

REVIEW EXERCISES

Answer the following questions within 500 words each :
1. Who is a gifted child ? What are the characteristics ?
2. How would you identify gifted children ? Describe the procedures.
3. What are the educational provisions for the gifted children ?
4. How would you mainstream a gifted child ?
5. What are some of the enrichment programmes that you can use for helping the gifted ?

Write the answer within 50 words each
1. Nongraded classroom
2. Special school
3. Special class
4. Grade skipping
5. Early admission
6. Credit system
7. Talent
8. Giftedness.

Write in one sentence or in a word :

1. Who wrote "The man of Genius" ?
2. Who wrote "The Hereditary Genius" ?
3. Who did the largest study of Genius ?
4. What is the IQ range of the Gifted ?
5. Is gifted same as creative ?

Write whether the Statements are True or False :

1. Approximately 3 to 5 per cent of children population are gifted.
2. Gifted children reflect greater reasoning capacity in problem solving.
3. Gifted children are well adjusted in school.
4. Gifted children face serious maladjustments in life.
5. Gifted children should be weaned from excessive immediate rewards.

22

Neurologically Impaired Children

Certain crippling and chronic health disorders in children are seen as a result of infection after they are born. Some of the common examples are : poliomyelitis, estomyelitis, tuberculosis, cerebral palsied. Although, the first three do not invariably lead to brain injury, perception, vision and audition including crippling conditions, yet these children demand special educational treatments.

However, there are certain neurological disorders which are not categorised as either crippling or a special health problem *e.g.*, aphasia—a language disorder due to brain injury. Hence, from an educational point of view crippling and neurological impairments would include all children with nonsensory physical impairments whether they are accompanied by a neurological damage or not and whether they resulted in chronic health condition or crippling.

Basically nonsensory physical impairments may be classified as crippling and chronic health ailments. The crippled have muscular and skeletal deformities which are obvious. They may wear braces, prosthetic devices such as artificial limbs or may be moving with crutches or wheel chairs.

The second category of children are confined to bed for relatively long periods of time and just do nothing. The crippled children are known as orthopaedically handicapped or motor impaired whereas the second category were known as special health problem cases.

A teacher or educator is less interested in physical aspects of disability but he is more concerned with the manner in which it will affect his functioning in a learning situation. Hence, in this section there will be discussions on three categories of children.

   (*a*) Children with muscular or neuromuscular handicaps which significantly delimit their ability to get about, sit in the classroom, manipulate the materials.

   (*b*) Children with skeletal deformities which also effect ambulation,

(b) Children with skeletal deformities which also effect ambulation, posture and use of hand in school work.

(c) Children with temporary or chronic lack of strength, vitality or weakness.

Nearly two percent of children suffer from these disability or impairments.

NEUROMUSCULAR IMPAIRMENT

Muscle weakness, paralysis, incoordination are grouped under this category. The difficulty usually occurs in nerves which innervate the muscles which may result from infection or injury at any time during the individual's life. Multiple sclerosis is due to progressive degeneration of muscular functions such as : spasticity of the extremities, tremors, unsteady gait, visual and other sensory complications resulting out of damage to nerves, patches of hardening, or scarring are scattered over the nervous system, brain, spinal cord and peripheral nerves. There is no known cure but partial recoveries are seen. This disorder is found more common in adults but begins in late childhood.

POLIOMYELITIS

This is otherwise known as infantile paralysis. This happens when nerve cells in the grey matter of the spinal cord which are damaged by the polio virus which leads to paralyses of the muscles. Children after an attack of polio do return to school when other muscles are utilised. Use of polio vaccines reduces to nearly 70 per cent of occurrences. These two types of neuromuscular impairments do not damage the intellectual capacity of children although they do affect school adjustment. Hence, the school might look at adjusting the physical facilities and providing the counselling facilities. In case of multiple sclerosis, the learning ability of the child progressively decreases with time.

SPINA BIFIDA

This is a congenital condition in which there is a defect of closure of the bony spinal canal. Hence, there is a profusion of the spinal cord through this gap. This causes extreme paralysis in the lower extremities as well as lower abdominal organs. The child is able to walk with crutches or braces. Sometimes hydrocephalic symptoms are seen and they cause mental retardation. Otherwise mobility and bladder control problems are more commonly seen in school.

CEREBRAL PALSY

This is not a disease. There are a series of neuromuscular disabilities which are characterised by disturbances in voluntary motor action, in the extremities mostly resulting out of brain damage. The senstitivity of the disability

depends upon the degree of damage or brain lesion. There are various types of cerebral palsy disorders ; spasticity, athetosis, ataxia, rigidity and tremors.

Secondary characteristics appear in these cases because the lesion is rarely localised. Mental retardation, sensory and other defects appear in a considerable number of cases. Approximately half of the cerebral palsy children have I.Q. below 70, high rigidity and an ataxic. Over half of the spastics had speech defects and nearly 90 per cent of the athetoids had this defect. Almost one third of the total group had seizures and only a slightly smaller percent had defects of vision. Lack so specific hand dominance contributes to difficulty in learning to read and write.

Type	Area of brain lesion	Characteristics
1. Spastics	Motor cortex and pyramidical tracts	Stretch reflex, tenseness of muscles, difficult and inaccurate voluntary motion.
2. Athetosis	Basal ganglia and extra pyramidical tracts	Marked in coordinator of muscles, constant motion of extremities.
3. Ataxia	Subcortical, cerebellum	Incoordinated movement, impaired balance and sense of orientations in space.
4. Rigidity	Diffuse	Widespread continuous muscle tension.
5. Tremor	Basal ganglia	Rhythmic, involuntary, uncontrollable motion, limited to muscle groups.

BEHAVIOURAL CHARACTERISTICS

Cerebral palsy is the result of brain damage. They show emotional disturbances like that of Strauss children. Some of them have impairments in perceiving shape, weight and texture. A few others have inability for spatial orientation and judgement. Cerebral palsy children often have difficulty in discriminating figure and background than do normal children. They give more concrete responses than abstract ones.

Nearly 50 per cent of cerebral palsy children have IQ below 70, 23 per cent fall between borderline and 28 per cent fall above average in IQ. Hence, the educational problems becomes one not only of adapting the programme to the multiple physical and psychological disabilities of the cerebral palsied child and in many cases adjusting to the level of slow learning.

Skeletal impairments in children affect primarily the upper and lower limbs spine and joints. As a result children are unable to walk, sit or stand or use hands. Some children have clubfoot. This is a condition in which one or both feet are downward and inward at the ankle occur most frequently. Congenital dislocation of the hips, scoliosis *i.e.*, laternal curvature of the spine appear among some of the children who are crippled or nonsensory handicapped. All these conditions are commonly found in school age children particularly at the elementary grade levels. The incidence of these disorders have decreased because of medical treatment.

There are also a few children in the school who need special care because they exhibit limited strength, vitality and alertness. They delimit the scope of children's functioning in school. Rheumatic fever is a chronic infection of the connective tissues of the body affecting joints, heart and blood vessels. Although rheumatic fever and pulmonary tuberculosis are decreasing, diseases like nephritis, infections, hepatitis and infections mononucleosis are creating concern in schools. All these require bed rest and limited activity during which time or programme of instruction in school subjects should be provided.

EPILEPSY

Epilepsy or seizure is a major chronic health condition which can affect the alertness, vitality and mental health of a child in a manner and to a degree that may severely lessen his ability to function in a regular school situation. This is quite common and is more frequent than cerebral palsy, polio, muscular dystrophy, multiple scelrosis combined.

There are several types of epilepsy : psychomotor, petitmal, grandmal. In psychomotor epilepsy the individual is violent, vigorous and is doing some automatic action which appear to others as meaningful but are meaningless. The individual does not remember what he has done. Such behaviours include temper tantrums.

In petitmal, the child looses consciousness for a few seconds but does not fall. His eyes may roll up or there may be a rhythmic blinking of eyelids. He drops things, appears to be staring straight ahead, or stands still, unaware of what is going on around him. The teacher often thinks that he is not paying attention. He quickly recovers and goes on what he was doing. If he is reading, he will stop for a moment and they go on with the passage. As a rule this does not inconvenience him or to any one to a great extent. But if such seizures occur quite frequently the child is apt to lose the thread of a lesson and be handicapped by gaps in continuity. The teacher should watch for signs that indicate a child is having a seizure and repeat directions. He may have missed or checked to see that he has understood what was going on in the class.

A child who has grand mal seizures less looses consciousness and fall rigid on the floor. This is preceded by a strange sensation known as aura (warning) and by a shrill cry. His muscles first tighten, then accompanied by salvation, twitching and tremors may follow. Then comes a deep sleep, coma or stuper. The seizure may last for a minute or two and when he recovers he may be dull or disoriented. He may want to sleep for some more time and consequently his school programme may be impaired. In a case such as this, what a teacher can do ?

  (a) Ease the child to the floor
  (b) See that he is not apt to injure himself by striking furniture or sharp corners while convulsions
  (c) Turning the child's head to one side and carefully placing but never forcing, a folded handkerchief or a soft object between back teeth is sometimes advised.
  (d) Do not use a pencil or other solid object for the teeth and gums may be injured
  (e) The teacher should help other children in the classroom to accept this seizure calmly and to understand that there is nothing contagious or harmful about in convulsion.

Children with epilepsy do not have necessarily low intelligence due to seizures. They show some signs of maladjusment because of social stigma and frustrating environment. Majority of the children with this condition can attend regular school. Normal activity and exercises may actually reduce the frequency of seizures. Incidence is reduced by following ketogenic diet (high fat carbohydrate) and anticonvulsive therapy.

EDUCATIONAL PLACEMENT AND INTEGRATED EDUCATION

The children who need special education because of neuromuscular impairment, skeletal deformities and reduced vitality are provided for in hospital classes, homebound instruction, special schools and special classes. But with some physical facilities and equipment their educational needs may be met adequately in regular classrooms under the integrated education scheme.

These are possible because they do not have impairment in intellectual functioning and can certainly learn through the same procedure as children without disabilities. Unless neurological damage is severe and intense no special method of teaching in necessary.

They require no drastic curriculum revisions. Certain adjustments may be made to increase their vocational and social competency. They may require a little more time to complete the prescribed courses. The goals of education are essentially the same as that for non handicapping conditions.

The following physical facilities may be provided in schools :

1. A short ramp up a number of steps to enable children in wheel chairs or on crutches to enter the building.
2. Addition of a handbar by a drinking fountain, in a toilet, or near a section of the blackboard.
3. Removal of desks to make room for the wheel chair to move.
4. Modification of furniture to provide for the comfort of the child with braces.
5. Rubber mats over slippery sections of the floor within the classroom. Problem of children having poor hand coordination can be solved by taping paper to the desk, devising some means of keeping pencils and crayons from rolling to the floor, providing holders for books.

In other words, with good planning and a little expense many children who would otherwise need special education services can be educated in normal classroom situations. The classroom and equipment provided for these children may consist of (a) wide door ways, (b) hand rails, (c) nonskid floors, (d) rounded corners, (e) play areas. The classroom furniture may be modified to (a) adjusting seats to turn to sides so that the child with braces can sit more easily, (b) providing foot rests, (c) adding hinged extensions to the desks with a cut-out to the child that has poor balance of eliminating the protruding parts over which a child might slip.

When do we think of placing a child in a special school ? When the child

1. Has specific learning difficulties
2. Needs special kinds of equipment
3. Needs disproportionability more of teacher time
4. Needs therapy
5. Has emotional problems

The cerebral palsied children cannot ordinarily be placed in a regular class. For mild cases with normal intelligence regular class may serve the purpose but for severe cases special class or special schools are necessary. Cerebral palsied children with mild motor involvement but more severe impairment of intellect, vision, or hearing will be best provided for in classes for the mentally retarded, visually or auditory handicapped. In advanced countries of the world hospitalised instruction or homebound instruction is provided but for a developing country its limitations are obvious.

Children with cerebral palsy may have the learning difficulties of the brain injured child added to the basic problem of muscular coordination and secondary sensory and mental impairment. Curriculum content will depend to a great extent upon what the student is going to be able to do with his education when he completes school or leaves the school.

Education and training of the cerebral palsied children should begin

very early, as early as 3 years of age. Early readiness program is designed to (*a*) stimulate interest and curiosity, provide for meaningful experience, increase language comprehension, develop satisfactory perception and built towards independence. The readiness period may extend over years. Methods of teaching the basic tool subjects may emphasise the meaningful materials and importance of useful reading skills may also be emphasised. Cerebral palsied children with intellectual and perceptual handicaps make acquiring the skills very difficult. For cerebral palsied sometimes silent reading is recommended. The kinaesthetic sense can be utilised in supplementing visual and auditory impressions and children whose motor involvement is not too severe can learn to read words through tracing them. Coloured felt pens are useful for the purpose becuase the colour gives added clues.

Adequate language and speech development is necessary for the cerebral palsied children. Speech training must be done by a speech therapist but games and exercises which stimulate auditory discrimination can form a part of the daily schedule. A 'conversation board' containing pictures, common objects helps the children learn to read. Non oral students get a deal of satisfaction from learning the 'Morse Code' and they communicate with the teacher by eye blinking or tapping on the desk for dots and dashes.

Handwriting of the cerebral plasied children have improved by giving specific manuscript writing training *e.g.*, activities is space orientation, coloring with lines, tracing and using word boxes with pictures. Teaching materials must be adapted to the needs of individual students on the basis of their physical problems as well as perceptual and learning difficulties. Pupils in pre-academic classes will learn to match colors and shapes distinguish between sizes and textures and develop the concepts of number through manipulative games and devices which promote eye-hand co-ordination. Some of the commercial materials available for this purpose are : pegboards, snap blocks, lock boxes, co-ordination boards, take apart toys, colour cones, junbo beads, puzzles. Materials can be devised to increase motivation and reduce boredom.

The physical aspects of the total educational situation assume major importance for children with cerebral palsy. In fact, physical development should go side by side with academic development. The physical therapist is primarily concerned with the development and maintenance body posture and mobility, voluntary movement. Physical therapy does contribute to improvement in neuromuscular impairment. The occupational therapists concentrate on the development of the self-help skills of dressing, grooming and abilities necessary for school work. Homebound and hospitalised instructions are costly but are given to cerebral palsy children in case of progressive advanced countries.

These are the physical and educational facilities that are available or can be made available for the educational of crippling and special nonsensory health disorders. The important concern should be that he should be accepted, should be helped to be independent and the society must change its outlook in seeing beyond his defect to the person that is there. This is a challenge that special educators should take.

REVIEW EXERCISES

Answer the following questions within 500 words each :

1. What is neurological disability ? Briefly describe the types of neurological impairments.
2. What is poliomyelitis ? How is it caused ? What can be done for their education ?
3. What is cerebral palsy ? What are the behavioural characteristics of such type of children ?
4. What is epilepsy ? What are its characteristics ? How would you treat such children ?
5. What are educational provisions for an epileptic child ?

Write within 50 words each :

1. Behavioural characteristics of the cerebral palsied
2. Spina Bifida
3. Strauss syndrome
4. Peitmal
5. Grand mal

Write whether the statements are True or False :

1. The crippled have muscular and skeletal deformities.
2. Nonsensory physical impairments are classified as crrippling.
3. Aphasia is a language disorder due to Brain injury.
4. Nearly 2 per cent children suffer from crippling.
5. Poliomyelitis is infantile paralysis.
6. Use of polio vaccine does reduce only to percent of occurrences.

Fill in the blanks :

1. ....have disorders in motor cortex and pyramedical tracts.
2. ....have disorders in Basal ganglier and extra pyramedical tracts.
3. ....have disorders in subcortical cerebellum.
4. ....have diffused brain lessons.
5. ....have defects in Basal ganglion.