Chapter One

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Children are the most precious wealth of any country. The welfare of any country or society depends on the proper growth of the children as in future they become the responsible citizens. That is why the study of child development has been a matter of intense importance to the people of different fields. Parents have always been interested in the proper development of their children. The community has been extending its care and concern for the children. Poets have glorified childhood and literature has immortalized the innocence of children. In this way the persons of different areas have shown a serious concern for the proper development of the children. Through child study they can contribute more to the welfare of children and thus to the building of a better nation.

The study of children, is of vital importance also because it helps in understanding the human behaviour. If one is to understand human beings at any stage of their growth, it is important to study their beginnings. Such study can lead to greater understanding of the individual child and to a recognition of the factors and influences that make each child unique. Much of what children do is a direct result of growth and development processes but some behaviour is caused by the interaction of the child with his/her environment.

The terms 'growth' and 'development' have different meanings, but are often used synonymously, to mean increased amount or
complexity or both (Smart and Smart, 1967). Growth generally refers to the physical aspect. It is quantitative, indicating changes in size, shape and proportions of the part of the body such as the structure of the internal organs. Development on the other hand, includes process like maturation and learning which is qualitative by nature. The totality of these changes is known as "development" which is the emergence and expansion of the capacities of the individual.

Regardless of theoretical positions, the growth and development process may be conceptualized as being a gradual movement towards the attainment of adult like competencies, necessary for successful living.

NATURE OF COMPETENCE

Competence is being used increasingly to distinguish people who possess certain attributes associated with a success in school and society, but there is not as yet an accepted definition of the term, common to most definitions, however, is the notion that competence is the ability to perform a culturally specified task. For example, Ainsworth and Bell (1974) define competence in part as the ability to influence environment and for Inkeles (1968) it is the ability to perform socially valued roles as defined in a given society. Upon a close inspection "ability" as used in various definitions of competence, refers to a set of skills which makes it possible to perform the given task. This is at least the impression one gains from Connolly and Bruner's introduction to 'Growth
of Competence' (1974). They state that, "in any given society there are set of skills which are essential for coping with existing realities" and how the individuals function, depends on their acquisition of the competencies (i.e., skills) required by these realities. Connolly and Bruner distinguish between specific skills and general skills, with emphasis on the importance of the latter. They give as an example of general skills "middle class education" or set of skills associated with technological management. This general skill includes "the capacity for combining information in a fashion that permits one to use flexibility, to go beyond the information given; to draw inference about things yet to be encountered; and to connect and probe for connection (P.4) they call this "operative intelligence" knowing how rather than simply knowing that" (P.B.). Competence is, then, a set of functional or instrumental skills. While Connolly and Bruner are primarily concerned with cognitive or intellectual competencies, others focus on linguistic, social-emotional and practical competencies (White, 1973; Williams, 1970).

White (1959) while explaining competence mentions, "competence is the exercise of behaviours which leads to a feeling of efficacy and thus a source of gratification that is universally and spontaneously sought by all members of our species. Competence includes at least three things. First, being able to select features from the total environment that provides the relevant information for elaborating a course of action.
This activity goes by several names: forming a schema, constructing a programme, etc. Secondly, having planned a course of action, the next task is to initiate the sequence of movements or activities, in order to achieve the objectives set for ourselves. And finally, we must utilize what we have learned from our successes and failures in the formulation of new plans (Connolly and Bruner, 1974).

Competence in infancy may be defined in three ways. First, it may be defined in terms of cognitive abilities and motor skills. In these terms an infant, especially a neonate (newborn), must be assessed as incompetent and helpless, both absolutely when compared with an older child or an adult. In the beginning, for example, he cannot reach out and grasp an object that interests him. He becomes more competent later when he can do so, and his competence in this regard can increase as his speed, precision and control increases. This definition of competence is obviously useful when one is concerned with a child's development towards adult ability. On the other hand, it tends to minimize the effectiveness of an infant behaviour and to neglect the extent to which it is preadapted to perform vital biological functions.

The second definition implies age or stage relevant assessment. An infant is competent to the extent that he functions well in the various situations that an infant normally encounters. As a neonate his competence rests on the adequacy of patterns of reflex activity, and hence upon the
integrity of his neural, muscular, and sensory equipment. According to this view competence is most appropriately assessed in relation to age.

The third view of competence contains an accessible mother figure whose responsive reciprocal behaviour is to a substantial extent under the control of the infant's behaviour. This implies, that at first an infant's competence rests, in most essential respect, upon the cooperation of his mother figure. This defines an infant's competence as his effectiveness. An infant is competent to the extent that he can through his own activity control the effect that his environment will have on him. This definition includes such matters as controlling when and how he is fed and control of his proximity to companions, as well as control of the continuation or recurrence of interesting sights and sounds or control of reaching out and grasping in interesting objects.

This definition of competence implies of competent mother-infant pair—an infant who is competent in his preadapted function and a mother who is competent in the reciprocal role to which the infant behaviour is preadapted. The infant in such a competent pair is effective in getting what he wants, at least in part, because he can influence the behaviour of a mother.

Thus, the competence may be defined as child's everyday effectiveness in dealing with his environment, his abilities
to master appropriate formal concepts, to perform well in
the school (i.e., on the educational achievement), to relate
with adults and peers. The components of competence may be:
acquisition of skills, his selfconfidence, positive selfconcept,
internal control of reinforcement, moderate and/or high level
of achievement, and positive leadership qualities. A competent
person is the one who perceives himself as socially adjustable,
emotionally mature, capable, selfconfident, successful,
satisfied, decisive, optimistic, independent, self reliant,
self assured, having leadership qualities and constructive

Since competence is of vital importance, various authors
have explained and defined competence. Taking into consideration
the various attempts to explain competence the following three
major approaches may be derived.

(1) Competence as effective social-role performance

This view reflects our current social mutation of a more
general sociological perspective of competence as employed
by Inkeles (1966), who has defined competence as "---- the
ability to attain and perform in three sets of statuses.
Those which ones society will normally assign one, those in
the repertoire of one's social system that one may reasonably
aspire to, and those which one might reasonably invent or
elaborate" (Inkeles, 1966 p.266).

The emphasis here is on the social component of competence-
effective participation in social roles and meeting of social
role expectations.
(2) Competence as ability to cope

The second approach to define competence is more psychological in nature. It explains competence as a process in coping and adaptation. Here the focus is not on roles, expectations, and social functioning but rather on the style and mechanisms of interacting with the environment. This aspect has been made clear by Gladwin (1967) when he mentions, "Competence develops along three major axes, all closely interrelated. First, is the ability to learn or to use a variety of alternative pathway or behavioural responses in order to reach a given goal. Second, the competent individual comprehends and is able to use a variety of social systems within the society, moving within their systems and utilizing the resources they offer. Third, competence depends upon effective reality testing which involves not only merely the lack of psychopathological impairment to perception but also a positive, broad, and sophisticated understanding of the world (p.32).

The above psychological view of competence focuses on the mechanisms and process which are used to perceive, interpret and interact with the environment. Coping styles, the ability to use a variety of resources, and effective reality testing, are the hallmarks of this psychologically competent person.

(3) Competence as experienced mastery

This view was presented by Smith (1968) who defined competence on the basis of the feelings the person (he/she)
has of himself/herself in regard to his/her ability to influence his/her environment. Feeling of personal power, ability to influence one's environment and self-determination are the characteristics of the competent person.

On the basis of the researches done in the field of human development three fundamental assumptions about competence may be drawn. The first is that the origins of human competence lie in intrafamilial relationship and parent (or surrogate parent), child interaction or in early childhood experiences. As Connolly and Bruner (1974) put it, "The general skills, cognitive and emotional, appear to depend on what has properly been called a "hidden curriculum in the home" (p.5). The second assumption is that the nature of human competencies can be adequately studied by focusing on micro-level analysis of the child's early experiences, such as an analysis of child's experiences within the family and similar settings. The third assumption is that a child's later school success and perhaps success in adult life depend on the acquisition of middle class competencies through middle class child-rearing practices.

AREAS OF COMPETENCE

Development of the individual may be conceptualized as beginning at the point of conception and gradual progress toward maturity. The sphere of experience and interaction with the environment gradually widens, and the individual
acquires competence in four major areas: physical, learning and thought, social, and inner competencies. In the following lines we shall briefly discuss these areas of competence.

1. Physical Competence

Physical competence includes the ability of the individual to use various motor and neurologic capacities to attain mobility and manipulation capabilities. It also includes the ability to physically take care of one's own biological and physiological needs. In the beginning the child remains helpless and relatively immobile and then grows gradually to the point where he or she maintains personal responsibility for physical health. The concept of physical competence incorporates the physiological functions of each body system. All assessment parameters that reflect the anatomy and physiology of the body are considered to be representative of the child's physical competence. The concept of physical competence also includes all environmental factors that impinge upon the child's physical development, physical ability, and physical systems.

2. Learning and Thought Competence

Learning and thought competence includes the development of language and thought process, cognitive maps and abstractions, perceptions, and communication capabilities. The child at birth is able to communicate crudely a few basic physiological
needs and begins to assimilate multiple stimuli, which eventually grow into conceptualizations and cognitive structures.

Learning and thought competence may be conceptualized as the child's ability to use complex mental powers to perform those operations deemed to be unique human cognitive traits. The advanced ability to reason, to solve increasingly complex problems, to give cognitive attention to affect dimensions of human existence, to idealize and project into the future are among the many learning and thought traits acquired during the years of growth and development. Besides this, the child acquires the ability to ponder, to mediate, to give deliberate thought to philosophic and religious ideas presented by the family and society.

Factors in the environment that influence learning and thought competence are considered for each stage of development and depend upon the major cognitive tasks that are a focus of development at the time of assessment. For example, during infancy and early childhood, stimulation and reinforcement factors provided by the family are of primary importance. During later childhood, factors in the school or other formal learning environments are of major significance, as are the influence of the peer group and the activities of the peer group that extend beyond school that influence the children's learning and thought development.
(3) Social Competence

Social competence includes the child's development of the interpersonal relationships—affiliation with significant people and peers and sociocultural interactions with individuals and groups of people. The processes of separation and affiliation constantly interact until an ability is achieved during adulthood that allows the individual to attain security and comfort from a variety of interpersonal relationship.

Assessment of social competence includes a description of the nature and quality of the child's interactions with strangers. The interpretation of social behaviour is made in terms of the norms of growth and development, as well as the primary expectations for the child's developmental stage by the family and culture. During early childhood the interactions of the infant and the mother or other significant persons are of major importance. The behaviour observed during this period are those of eye contact, touch, and attentiveness of each individual to the other. As the child develops and grows, the range of social behaviours increases significantly. The child is expected to relate to an increasing wider circles of persons. Behaviour is increasingly shaped by the social and cultural environment. Thus, assessment of the child's actual behaviour, as well as the social and environmental factors that influence behaviour, are of major importance in assessment and interpretations of social competence.
Social competence during the early years of life is primarily defined by the age and stage of development of the child, but as the age progresses it is more predominantly defined by the society of which the child is a member and that is why social competence has been defined by many authors as performing the socially approved assignments.

4. Inner Competence

Inner competence includes the individual's developing awareness of self, the ability to cope as a separate person with the multitude of factors that influence the self, and acceptance and realization of self. The child at first experiences himself or herself as part of others and is not able to assume responsibility and accountability for thoughts, behaviour, or being until a measure of maturity is achieved. An inner sense of security and well being characterizes the healthy child at any stage of development but the personality traits characteristic of each stage of life are identified through various theories of personality development. This area of competence is intimately tied to the development of each of the other competence areas and exerts an influence on the child's state of health in every area of development. Likewise, each of the other competence areas exerts an influence on the development of inner competence. The interactions between social and inner competence are so closely interrelated that they often cannot be described as separate areas of development.
Tools for an assessment of inner competence are limited. Other possible parameters of inner competence include body, language, personal habits, daily patterns of living, drawings of the self, and expressions of the self through play. Because of limited knowledge of the meaning of these behaviours, it is difficult to make interpretations, but the behaviour can be described to convey the nature of child's inner competence.

These four major competencies develop simultaneously from some point after conception and constantly interact and influence one another. They may be enhanced or caused to deteriorate by the multiple factors influencing development and, in fact, each competence becomes a factor influencing the others. Therefore, it is necessary to conceptualize development in four major competence areas in order to take into account each of the parameters of self that contribute to the child's unique wholeness. Therefore, upon completing the assessment of each of the competence areas, one may have a comprehensive basis for making assessment of the child as a complete human being.

SOCIAL COMPETENCE

In earlier lines we have mentioned the different areas of competence. Since the present study is related to social competence, a somewhat detailed description of social competence is needed. Therefore, in the following discussion some useful information about social competence would be presented.
The concept of social competence is multidimensional and it is very difficult to give a precise definition. (Anderson & Messick, 1974; Zigler & Trickett, 1978). The difficulty arises in identifying the specific social behaviour which accounts for competence performance in social situations but those who have studied the variable conclude that social competence is related to success of attempts to influence the behaviour of a peer (Wright, 1980); positive active behaviour (Kohn & Rosman, 1972), effectance motivation (White, 1959); and coping in superior way in day-to-day situations (White & Watts, 1973). Further social competence seems to be related to cognitive competence, and affective and cognitive perspective taking ability (Wright, 1980). Indeed Wright (1980) has suggested that social competence is simply one aspect of general competence and is reflected in autonomous striving to gain mastery over the social world.

The term "social competence" is often labeled as assertiveness in adults or social skill in children and refers to an outgoing interaction between individuals and their environments. In response to environmental inputs, a child must employ cognitive-social inferential ability and data from his own emotional reactions in order to define the situation and emit a behavioural response. Each response is one link in a sequence of outgoing interactions with the environment (Rotheram, 1980, p.74). Rotheram (1980, p.74) mentions that
social competence includes three factors i.e., cognitive, behavioural, and emotional. He has categorized the above components of social competence as under:

(1) Cognitive factors

a. Problem solving ability emphasizing alternative generation and means end thinking.

b. Discrimination of socially desirable behaviour.

c. Self-monitoring through self-reinforcement and self-punishment.

(2) Behavioural Factors

a. Verbal behaviours such as positive statements to self and others, friendship initiation and feedback.

b. Non-verbal behaviours such as posture, voice, tone, latency, gestures, and eye contact.

(3) Emotional Factors

a. Monitoring and assessment of positive and negative emotional state.

b. Methods of relaxing or control of negative emotional states.

As mentioned earlier the concept of social competence has been examined by a number of investigators and has been operationalized in several ways: while defining social competence Kellmer Pringle (1965) mentions that, "social competence is manifested by the extent to which an individual is able and
willing to conform to the customs, habits and standard of behaviour prevailing in the society in which he lives; by the degree to which he is able to do so independently of direction and guidance; and by the extent to which he participates constructively in the affairs and conduct of his community". Argyle (1967) while defining social competence considered the behaviour taking place in social interaction to be analogous to motor skills and, accordingly, postulated social competence to be a function of goals of performance, selective perception of cues, central processes, motor responses, feedback and timing of responses.

A behavioural definition of social competence was presented by Goldfried and D'Zurilla (1969) who explained social competence as the effectiveness of adequacy with which an individual is capable of responding to the various problematic situations which he confronts. These authors suggested the need of a behavioural analytic model defined operationally in terms of an individual's interactions with a specific environment. This definition emphasizes the importance of problem-solving ability in social competence and concretizes social competence into an observable behaviour outcomes. Bruner (1974) viewed social competence as the ability to deal with a situation by exchanging information with others. This involves the ability to initiate interaction, to respond to the social gestures of others, and to refrain from the overt expression of negative
behaviours that would inhibit reciprocal interaction. Pease, Clark, and Crase (1979) defined social competence as a compilation of many aspects of interpersonal behaviour involving interaction with others and feeling of personal competency and selfworth.

One of the most complete and elaborate definitions of social competence was presented by Anderson and Messick (1974) which is based on the deliberations of a distinguished panel of child development experts. They described four types of definitions: (a) trait psychology approach, listing the characteristics of a healthy person (b) an attainment notion, listing goals achieved; (c) a normative-expectation strategy, attempting to establish age related competencies for normative behaviour; and (d) a theory guided approach based on a theory of personality or development. Here it is worthwhile to mention that these authors reviewed a number of underlying conceptual problems and specified 29 aspects of competence which are summarized as under:

1. Differentiated self-concept and consolidation of identity.
2. Concept of self as an initiating and controlling agent.
3. Habits of personal maintenance and care consistent with common peer group standards.
5. Differentiation of feelings and appreciation of their manifestations and implications.
6. Sensitivity and understanding in social relationships.
7. Positive and affectionate personal relationship.
8. Role perception and appreciation.
10. Morality and prosocial tendencies.
11. Curiosity and active exploration of the environment.
12. Control of attention, as a function of situational or task requirements.
13. Perceptual skills, visual, auditory, tactile, kinesthetic.
15. Gross motor skills.
16. Perceptual motor skills (coordination of visual, auditory, and motor behaviour).
17. Language skills: productive and receptive.
18. Categorizing skills.
19. Memory skills.
20. Critical thinking skills.
21. Creative thinking skills.
22. Problem solving skills.
23. Flexibility in the application of information processing strategies.
24. Quantitative and relational concepts, understandings, and skills.
25. General knowledge, (of health and safety, social environment, physical environment, practical arts, consumer behaviour, sports, art, music, literature, etc.).
27. Facility in the use of resources for learning and problem solving.
28. Some positive attitudes toward learning and educational experiences.
29. Enjoyment of humour, play and fantasy.

Ford (1982) formulated a definition based on a number of theoretical criteria. He defines social competence as the attainment of relevant social goals in specified social contexts, using appropriate means and resulting in positive developmental outcomes. He mentions that his definition of social competence has the following vantage points.

(1) Unlike previous definitions, it is applicable to research question at both molar and molecular levels of analysis (because goals may be global and general or narrow and specific).

(2) Given adequate developmental and social theories to specify the goals that are relevant for a given individual, this definition points to a clear strategy for assessing social competence (i.e., in terms of goal attainment).

(3) It defines competence in terms of behavioural outcomes rather than hypothetical constructs, thereby avoiding trait connotations.

(4) It requires specification of the contexts relevant to a given assessment of competence. This and the previous two features of the definition tend to reduce the vagueness in the meanings ascribed to an assessment of competence.
(5) It assets the importance of considering both the short-term and the long-term (developmental) outcomes.

(6) The use of the terms 'relevant,' 'specified,' 'appropriate,' and 'positive' clarify where one must make the value judgments that inevitably arise in defining social competence. (For example, the skill of manipulating people may be evaluated positively or negatively depending on one's value about the tactics used and consequences intended in a given situation).

Guralnick (1989) has emphasized the importance of social competence. He argues that the construct of social competence should be a vital element in both the design of early childhood intervention programmes and their evaluation. For him social competence is important because of the following reasons: (i) socially competent functioning is of developmental significance, (ii) it is potentially malleable, (iii) it provides a sensitive index of overall functioning, (iv) its assessment can lead to useful intervention strategies, and (v) it can guide the design of preventive intervention programmes.

Guralnick (1990) while explaining the nature of social competence mentions that social competence is seen as a central concept in development. It is dynamic; it depends on integration across all developmental domains; it demands that children organize their skill and knowledge over time; and it respects variability in behaviour and recognizes the ability
of young children to compensate for deficits in specific domains. Moreover, a social competence framework is useful in that it can highlight problems that assessments of more static constructs cannot, and it focuses not only on 'effectiveness' but also on how appropriately children go about gaining their ends. It has also been suggested that social competence must be interpreted in the context of social tasks—not only global tasks like making friends, but also specific ones such as gaining entry into a group. Finally, the importance of social competence, specifically peer competence, to later adjustment, to acceptance by others, and ultimately to one's quality of life argues for its significance in the design of early intervention programmes.

Thus, taking into consideration the nature and various definitions of social competence, we may conclude that social competence is a high-order construct made up of many components that can combine for effective behaviour. Although we often measure only a subset of these components, it is nevertheless important to think of them as a part rather than the whole of our molar notion of social competence (Vaughn & Hogan, 1990).

Vaughn and Hogan (1990) have explained social competence as a construct analogous to intelligence and it may be studied from both the individual difference perspective as well as a developmental one. The current concern with sociometric assessment is an example of the contribution of an individual
difference orientation, "while the study of children's developing social cognition regarding social relationship is an example of developmental or age-norm orientation. Each contribute critical information for our ultimate understanding of social competence in the same way as psychometric, developmental, and processing approaches assist in our understanding of the development of intelligence. These authors have included the following four components in social competence.

1. Positive relation with others: This component includes general peer friendship patterns, family relations and at later ages, intimate relations.

2. Accurate age-appropriate social cognition: This component includes interpersonal problem solving, self-evaluations as well as attributions and judgment about others' feeling, motivation, and behaviour.

3. Absence of maladaptive behaviour: This component includes the absence of serious behavioural problems and noxious social behaviour. In more positive sense it also includes the development of self-control.

4. Effective social behaviour: This component includes, the range of specific social skills often targeted for behavioural observation or intervention.

These four components form the core for the higher order construct, social competence. No single component in isolation
can adequately define the overall competence construct. In fact, individual's competence can be made of unique patterns of strength and weakness across the components. In addition, though components have some independence a modest pattern of interrelatedness is expected as well.

ASSESSMENT OF SOCIAL COMPETENCE

The assessment of social competence in children has received increased attention. This is due to the fact that social competence is related to long term adjustment. It has been observed that social isolation in childhood has been associated with a disproportionately high rate of juvenile delinquency (Roff, Sell & Golden, 1972), dropping out of school (Ullman, 1957), bad conduct discharges from the military (Roff, 1961) and mental health problems (Cowen, Pederson, Babigian, Izzo, & Trost, 1973). Further, corroboration of these relationships was found in a longitudinal study examining childhood characteristics (Kagan & Moss, 1962). These authors found that "passive withdrawal from successful situations, dependency on the family, case of anger arousal, involvement in intellectual mastery, social interaction anxiety, sex role identification, and pattern of sexual behaviour in adulthood were each related to reasonably analogous behavioural dispositions during the early school years" (p.266)," since all these factors are somehow related to social competence, the measurement of social skill has become an area of extensive research in the recent years.
The development of any assessment strategy is one's own conceptualization of the problem. Psychodynamic and trait theory conceptions of interpersonal malfunctioning would lead to entirely different approaches than behavioural perspectives. Even from generic behavioural view, there are decidedly different opinion about the "real" nature of interpersonal problems, with associated recommendations about what should be assessed, and how the assessment should be conducted. In fact, a complete behavioural assessment includes measurement of the three primary response systems: cognitive, motoric, and physiological. In the following part, strategies used to evaluate social competence in children would be examined briefly.

1. Cognitive Response System

In cognitive response system generally, sociometric techniques, rating scales, interviewing, self-report inventories and social cognitive tasks are included. These various techniques of measuring social competence are described briefly.

(a) Sociometric Techniques

Sociometric assessment techniques were developed to measure the attraction between individual members of a specified group (Moreno, 1934). These are an effective method to identify socially isolated children. While these procedures have long been studied in developmental and social psychology, they are relatively new addition to behavioural assessments. (e.g., Beck,
Forehand, Wells & Quante, 1978; Drabman, Spitalnik, & Spitalnik, 1974; Whitehill, 1978). Several different sociometric techniques have been developed which will be discussed below.

The peer nomination sociometric strategy has been widely used in studies of children's peer relations to identify peers on the basis of socially relevant criteria such as best friends, especially liked school, work, or play partners, or physical attributes not the specific behaviours of target children. (Gresham, & Elliot, 1984). This technique has been used with both positive criteria (e.g., "name three classmates you like very much") and negative criteria (e.g., "name three classmates you don't like very much"). Use of such measures provides an indication of a child's social status in classroom. Positive criteria tend to measure acceptance in a peer group, whereas negative criteria measure rejection from a peer group.

The roster and rating method is another sociometric technique, in which children are presented with an alphabetical test of all their classmates and asked to rate (on a 1-5 scale) how much they would like to play or work with the named child; a low rating indicates that they do not like to play or work with the child. A child score consists of the average rating received from peers.

There are several reasons for employing sociometric devices. First, extensive examination indicates that these techniques have excellent psychometric properties (Hymel & Asher, 1977).
Children's score on sociometric measures have high reliability (Bonney, 1943; Busk, Ford & Schulman, 1973; Roff et al., 1972). Second, the predictive validity of these instruments is well documented (e.g., Cowen et al., 1973). However, some studies (e.g., Gottman, 1977; Hymel & Asher, 1977) showed a lack of correspondence between sociometric ratings and behavioural data (frequency of peer interaction). This suggest the need to collect both types of data for accurate subject identification and treatment outcome evaluation (Beck et al., 1978).

In addition to above characteristics the sociometric measure has predicted juvenile delinquency, school maladjustment, dropping out of school, and personal adjustment difficulties in childhood and adulthood (Cowen et al., 1973; Robbins, 1966; Roff et al., 1972; Ullman, 1957; Weintraub, Prinz, & Neale, 1978). Drawbacks of sociometric measures include their inability to show behavioural deficits in day-to-day skill evaluation.

(b) Rating Scales

Rating scales are one of the important means by the help of which social competence of the children is measured. Assessment of children's competence may also be done by rating of teachers, parents, and peers. Now a brief information about rating scales will be presented.
(i) Teacher-Rating

Until recently, teacher ratings of students' social competence were restricted to the use of behaviour-problem checklists. Within the past several years, a number of teacher-related scales have been developed specifically for assessing students' social competence.

In the teacher-rating scales teachers frequently are asked to identify or evaluate socially inappropriate children on the basis of their classroom behaviour. Selection of subjects for research projects is generally accomplished by observations of children who initially are scored by teachers as socially deficit or withdrawn on rating scales. These instruments vary considerably in format. For example, Evers and Schwartz (1973) simply asked nursery school teachers to submit names of children they felt to be most socially withdrawn. Similarly, teachers in O'Connor's (1969, 1972) studies chose from their enrolment lists the five most socially withdrawn children in their class. Chittenden (1942) asked teachers to rate children on five point scales for each of several categories, including performance in initiating social contacts, response to initiations of others, suggestions for joint use of materials etc. Spivack and Swift (1967) developed Devereux Elementary School Behaviour Rating Scale (DESB) which consists of 47 items rated on 5-7 point scales. It successfully differentiates maladjusted and poorly achieving children in the classroom (Kendall, Pellegrini, & Urbain, 1981) and appears to be a
sensitive long term predictor of adjustment (Spivack, Marcus, & Swift, 1986). Four factors were derived, by factor analysis: Disruptive-Oppositional (18 items), Poor Comprehension Inattention (14 items), Cooperative-Initiating (8 items), and Performance-Anxiety (4 items). These scores have high internal consistency and, with exceptions of performance-Anxiety, appear to be stable over a 17-months interval (Finkleman, Ferrarese & Garmezy, 1986).

Walker (1970) developed the Walker Problem Behaviour Identification Checklist (WPBIC) and was administered by Walker and Hopes (1973, 1976) to select socially withdrawn children. The WPBIC was developed as a classroom scoring instrument for identifying children with behaviour problems. It includes a social withdrawal scale, which consists of items such as "does not engage in group activities", "does not initiate relationship with other children" etc.

Another teacher-rating scale- A Curriculum for Effective Peer and Teacher Skills (ACCEPTS) - was developed by Walker, McConnell, Holmes, Todis, and Golden, (1983) which consists of 28 items rated by teacher on a 5-point scale (i.e., not descriptive to very descriptive). Gresham and Elliott (1984) suggested that although psychometric properties of the Walker scale have not received much research attention, it appears to have content validity.
Miller (1972) prepared the School Behaviour Checklist (SBCL-Form A-2) for studying deviant behaviour of elementary school children. For each of the 96 items the teacher rates the presence or absence of a specific behaviour on performance in a variety of situations. Similarly, Quay (1977) constructed the Behaviour Problem Checklist which is a 3-point scale for rating 55 problem-behaviour traits occurring in childhood and adolescence.

The Kohn Social Competence Scale (Kohn & Rosman, 1972; Kohn, Parnes, & Rosman, 1979) is a teacher rating instrument for preschool children which consists of 60 items in which social behaviour is rated on a 5-point scale ranging from "hardly ever or never" to "very often or always". Ratings are then seemed to produce two bipolar factor scores. The first factor, interest-participation vs apathy-withdrawal reflects a child's interest and ability in establishing in classroom activities. The second factor, cooperation-compliance vs anger-defiance, relates more to the child's willingness to conform to classroom rules, regulations and routines.

The Behaviour Predictor Scale developed by Monson, Greenspan, and Simensson (1979) is an open ended instrument to assess the social competence of preschool children through teacher descriptions of a child's behaviour in hypothetical situations. The scale contains 10 items that reflect a responsibility
factor and 10 that reflect an assertiveness factor, the combination resulting in a general social competence rating.

Stephans (1979) developed Social Behaviour Assessment (SBA). It is a comprehensive, 136-item Likert-rated scale (i.e., acceptable level, less than acceptable level, on never). The 136 social competence items are grouped into four general factors: environmental, interpersonal, self-related, and task-related. The SBA has good reliability and validity (Gresham & Elliott, 1984). Stumme, Gresham, and Scott, (1982) found that SBA factors discriminated between emotionally disturbed and non handicapped students, thereby making it useful for selecting and classifying students with social competence deficits.

The teacher-report form of the Matson Evaluation of Social Skills with Youngsters (MESSY) (Matson, Rotatori, & Helsel, 1983) consists of 64 items, each rated by the teacher on a 5-point scale (i.e., 1 = not at all, 5 = very much). The 63 items are grouped into two factors: inappropriate assertiveness/impulsive and appropriate social skills. Psychometric properties of the MESSY teacher report form have not received much research. However, preliminary investigations suggest that the MESSY, has adequate test-retest (r=.95) reliabilities and can discriminate between severity of emotional problems manifested by children (Matson, & Ollendick, 1988). It is noteworthy to mention here that factors of the MESSY are derived through varimax rotation procedure with
62-Items self-report and 62 items teachers report. The self-report part may also be used as self-report inventory.

The Teacher Rating of Social Skills (TROSS) scale was designed by Clark, Gresham, and Elliott, (1985). The TROSS is a 50-item instrument in which teachers rate social behaviour on a 3-point frequency dimension (i.e., often true, sometimes true, nevertrue). In order to increase the social validity of the TROSS, teachers specify whether each behaviour is critical, important, or unimportant for classroom success. The TROSS is internally consistent (r=.97) and adequately discriminates between mainstreamed mildly handicapped and nonhandicapped children (Clark et al., 1985).

The Taxonomy of Problematic Social Situations (TOPS) scale was developed by (Dodge, McClaskey, and Feldman, 1985). It consists of 44 items, each rated by the teacher on a 5-point scale (i.e., 1 = never, 5 = almost always). Six situation types emerged as factors: peer group entry, response to peer provocations, response to failure, response to success, social expectations, and teacher expectations. Dodge et al., (1985) obtained an internal consistency reliability coefficient of .96, while test-retest reliability over 6 months was .79. Construct validity was supported by the ability of TOPS to discriminate between rejected and adaptive children.

Dodge (1986) developed a teacher checklist for studying social competence of the children. The checklist contains
24-items which yields a composite score for the child's aggressiveness (5 items) and social skills with peers.

Various advantages of teacher ratings have been noticed:
(i) The quickness and economy with which they can be used (Wolf & Merrens, 1974); (ii) Collection of easily quantifiable data; (iii) evaluation of wide range of problem areas; and (iv) potential utility as outcome measures in treatment programmes.

Several problems associated with use of teacher's ratings have also been emphasized. First, the value of such ratings depends on the opportunities that the teachers have to observe particular behaviours of interest. Adequate understanding of the behaviours to be checked or rated is an additional prerequisite to collection of valid data. Further demonstrations of adequate psychometric properties of these instruments is a consideration in their use. Data relevant to this issue are rarely presented. Development of a psychometrically behavioural norms would lead to a more standard and systematic assessment procedure.

(ii) Parent-Rating

Parents' ratings have also been found very useful for assessing the social competence of the children. A brief description of some of the instruments based on parents' ratings is presented.

The Vineland Social Maturity Scale (Doll, 1953) has been recommended as the best measure of adaptive behaviour by the
American Association on Mental Deficiency (AAMD) in 1961. The first formulation of the scale was published in April 1935. The scale provides a definite outline of detailed performances in respect to which children show a progressive capacity for looking after themselves and for participating in those activities which lead toward ultimate independence as adults. The items of the scale are arranged in order of increasing average difficulty and represent progressive maturation in self-help, self-direction, location, occupation, communication and social relation. This maturation in social independence may be taken as a measure of progressive development in social competence. Here it is worthwhile to mention that the items of the scale aim to avoid measuring intelligence, skill, achievement, personality, emotionality and the specific results of environmental opportunity, training incentives, habit and so on, as such. The influence of such factors is expressed in terms of their composite capitalization for socially independent behaviour (Doll, 1965).

The Cain-Levine Social competency Scale developed by Cain, Levine and Elzey (1963) consists of 44 items divided into 4 sub scales: self-help (14 items), Initiative (10 items), Social skill (10 items), and communication (10 items). A child's social competency rating is obtained by conducting an interview to determine the habitual or typical performance of the child in regard to each of the items included in the social competency scale. The nature of the items requires that the persons
providing information about the child should have considerable opportunity to observe him. The items in the scale are the samples of social competency behaviour based explicit observation in home situation.

The assessment of social competence of children in the university of Rochester Child and Family Study (URCAFS) and related studies has focused upon the development of a series of age-appropriate measures of social competence in children throughout early childhood, middle childhood and adolescence. This series of instruments, developed by Jones (1977), referred to collectively as Rochester Adaptive Behaviour Inventory (RABI), was designed to produce both a "fine-grain" as well as a global description of child's behavioural assets and liabilities at adjacent age periods based upon the parents' report of child behaviour. A series of five parallel and age-appropriate forms of RABI has been designed to span the child's development from 2 to 18 years of age. These forms of the RABI are designed as Form A (2-3\(\frac{1}{2}\) years), form B (3\(\frac{1}{2}\) - 5 years), form C (5-8\(\frac{1}{2}\) years), form D (8\(\frac{1}{2}\) - 12 years), and form E (12-18 years).

The RABI employs a clinical interviews of parents based upon many specific, behaviourally oriented questions. Each question is accompanied by a scale specific to that time, each point of which is operationally defined. Questions are scored by interviewer rather the parents after careful probing of each question. The various forms of RABI contains from 110 to 145 items.
Jones (1981) also developed an instrument in measuring the social competence of children of $2\frac{1}{2}$ and 4 years known as Rochester Adaptive Behaviour Inventory (Revised Pre-school Form) which contains 71 items. The scale measures social competence on 12 dimensions. The instrument is designed to gather information about children's adaptive behaviour by the means of parental interview.

Achenbach (1978) developed Child Behaviour Checklist (CBCL) which assesses an array of behavioural problems and social competencies. The measure includes 118 items scored on a 3-point scale depending on the degree to which a particular statement characterizes the child. The CBCL measures social competence on 3 dimensions such as engaging in activities, interacting with friends, and performing well at schools.

Pease, Clark, & Crase (1979) constructed the Iowa Social Competency Scale: School-Age form to measure social competence of the children. The instrument consists of separate forms for mothers and fathers. Six factors for the mother's rating scales are as follows: task oriented, disruptive, leadership, physically active, affectionate, and apprehensive; five factors for father's instrument are capable, defiant, leadership, active with peers and affectionate with parents. The mother's and father's forms contain some factors in common and some that are distinctly different.

Srivastava (1983) developed a Social Maturity Scale (SMS) for the assessment of social maturity of the children of
different age-groups. The scale contains seventeen parts and 130 items in all. The required informations are obtained from those who are intimately familiar with the testee such as mother father, a close relative, guardian, attendant or supervisor. The author of the scale mentions that the scale affords: (a) a standard schedule of normal development which can be used repeatedly for the measurement of growth or changes, (b) a measure of individual differences deviations which may be useful in such problems as mental deficiency, juvenile delinquency, child placement or adoption, (c) a qualitative index of variation in development in abnormal subjects such as the maladjusted, the unstable, the psychopathic the epileptic, (d) a measure of improvement following special treatment, therapy and training, (e) a schedule for reviewing developmental histories in clinical study of retardation, deterioration and rates or stages of growth and decline.

The scale is also useful in distinguishing between mental retardation with social incompetence (feeble mindedness) and mental retardation without social incompetence, (which is often confused with feeble-mindedness). It also affords assistance in child guidance and child training, by indicating the relative aspect of social competence (Srivastava, 1983).

(iii) Peer-Rating

Various investigators have assessed social competence of children through peer ratings. The rating scale approach
provides children with a finite list of their peers to rate according to a specific criterion (Asher & Hymel, 1981). A typical peer-rating measure would require students to rate on a scale of 1 to 5 (not at all" to "very much") how much they like to play (or work) with each of their classmates. The average play (or work) ratings received are calculated for each child as well as the number of "1" ratings received (peers like to play (or work) with them "not at all"). Asher and Dodge (1986) pointed out how the use of "1" ratings reliably identifies rejected children without the necessity of asking children to list those peers whom they dislike.

Peer-rating measures have several advantages. First, because each student rates all classmates, information is obtained on the child's attitude toward each peer, second, the rating scale approach is quite sensitive to differences in sociometric criteria. For example, Singleton and Asher (1977) found different dimensions of sociometric status when children rated either how much they liked to "play with" or "work with" peers at school, third, test-retest reliability of this measure has been found to be quite high (Oden & Asher, 1977).

(c) Interviewing

Bierman (1983) suggested that interviewing provides a means to assess further cognitive variables that may mediate observed performance deficits. Interviewing techniques vary
greatly depending upon students' presenting problem(s) and amount of structure desired by the interviewer (Bierman & Schwartz, 1986). Simply asking students to explain their strategy for approaching a task often is the most direct and efficient method for eliciting information (Howell, & Morehead, 1987). Progressing in structure, imagery recall exercises help students attend to strategic aspects and details of an experience that otherwise might be overlooked or underemphasized by simply asking them for an explanation. Imagery recall requires students to imagine or relive in the recent experiences through "mind's eye" (Meichenbaum, 1985). For example, student may "pretend" to teach a peer the strategies and subskills necessary for successful task performance, while the interviewer notes difficulties. At the structured end of the interviewing spectrum, Elliott, Gresham, and Heffer (1987) suggested that behavioural interviews are useful for:

(i) defining social behaviours in observable terms,
(ii) identifying antecedent, sequential, and consequent conditions affecting performance, and (iii) for designing observational systems for measuring target behaviours.

Interviewing both students-who do well and those who perform poorly—also provides information for determining strategy deficits (Harris, 1988). Lovitt (1983) mentions that less time should be expended in examining students with problem behaviours and more time in examining students who are socially
competent. Observing "experts" during social exchanges expedites identification of subtasks and strategies indicative of socially competent functioning. Regardless of the specific technique employed, interviewing should focus on problem-solving contexts such as making friends, resolving conflict, and joining in activities (Hughes & Hall, 1987).

(d) Self-Report Inventories

Several self-report inventories to measure social competence have been developed. One of the first self-report inventories designed specifically to measure assertiveness in children is the Self-Report Assertiveness Test for Boys (SRAT-B) by Reardon, Hersen, Bellack and Foley (1978). The test consists of 20 items. Ten of the items were designed to elicit negative assertive responses and the remainder were designed to elicit positive assertive responses. Two representative items are: 

"You drew a picture in art class and the boy next to you says: Wow, that's really great!" (positive assertion);" Pretend that you are at home watching your favourite T.V. programme with your friend. He gets up and turns on something you don't like. He says: Let's watch this instead" (negative assertion).

Subjects are instructed to check as many statements from a series of five alternatives which they feel they would typically use in a real-life encounter. Reardon et al. (1978) found generally low agreement between SRAT-B scores and behavioural measures of assertiveness taken in role-play situations. However, their further analysis revealed moderate
to high correlations between scores on this scale and
behavioural ratings for the oldest subjects (seventh to eight
graders) in their sample. Some other self-report instruments
for measuring social competence/skill are: Social Performance
Survey Schedule (SPSS) by Lowe and Cautela (1978) and the
Social Competence Scale by Comer, Haynes, Lee, Boger, and
Rollock (1987). Here it is worthwhile to mention that a
slightly modified version of the Social Competence Scale by
Comer et al. (1987) has also been used by parent and teacher
ratings.

(e) Social Cognitive-Tasks

A social cognitive assessment device that has attracted
the attention of behavioural researchers is role-taking.
Role-taking refers to the ability of an individual to
simultaneously consider his own point of view and that of
others (Feffer & Gourevitch, 1960). This skill has been
related to cognitive maturity, developmental level, and measures
of social interactive skill (e.g., Feffer & Suchotliff, 1966)
Data have been adduced which suggest that proficiency in role
taking may be associated with interpersonal effectiveness
in children.

A variety of measures have been used to assess children's
problem solving skills. Two frequently used instruments are
the Matching Familiar Figures Test (MFPT) (Kagan, Rosman, Day,
Albert, & Philips; 1964) and the Means-End Problem Solving
(MEPS) (Shure & Spivack, 1972) test for children.
The Matching Familiar Figures Test is a 12-item match-to-sample task in which children are shown a single picture of a familiar object and instructed to select the identical picture from six variants, children are scored on both the speed and the accuracy with which they respond. The MFFT has adequate test-retest reliability, but reliability tends to drop when used to classify subtypes of socially incompetent children (Kendall & Finch, 1979).

The original Means-End Problem Solving test consisted of six stories presenting interpersonal problems for which the child is required to provide the final outcome. Although the MEPS has adequate reliability and discriminates between socially maladjusted and adjusted children (Kendall, Pellegrini, & Urbain, 1981), it suffers from several methodological deficiencies.

Lochman and Lampron (1986) developed the Problem Solving Measure for Conflict (PSM-C) in an attempt to improve certain deficiencies in the MEPS. Unlike the MEPS, the PSM-C scores both the quality and quantity of children's responses, employs more realistic story content, obtains separate scores for different interpersonal contexts (i.e., parents, teachers, peers) as well as for the level of others' intent in conflict ambiguous or hostile provocation, and exclusively employs problems involving interpersonal conflict (Hughes, 1988).
The PSM-C consists of six means-ends stories, with each stem describing a problematic situation and a conclusive in which the problem was no longer occurring. Children provide the middle, giving an initial solution, to the problem and later providing any additional solutions. The PSM-C is scored according to students' responses to three content codes: verbal assertion, direct action, and physical aggression. Kappa reliability coefficients obtained for each code were .83, .83, and .98, respectively. In terms of validity, a discriminant analysis correctly classified 78% of nonaggressive boys and 70% of aggressive boys, for an overall classification accuracy of 74%.

2. Motoric Assessment

There are two primary categories used to measure overt interpersonal behaviour of children. First is naturalistic observation and second is role-playing. Brief descriptions of these two strategies are given below:

(i) Naturalistic Observation

One of the most important purpose of naturalistic observation of children's social interactions in the natural environment is to identify children who demonstrate in appropriate interpersonal skills. Naturalistic observation is also useful to assess the effects of interventions aimed at modifying their behaviour. Typically, data have been presented as rate, frequency, or percentage of interactions or total behaviours.
In most investigations, children's behaviours of interest have been recorded by trained observers in the session itself. A few researchers have utilized video-taping with retrospective ratings although data suggest that this procedure may be effective in reducing biases related to direct observational recording methods (see Eisler, Herson, Miller, & Blanchard, 1973; Kent, & Foster, 1977).

Naturalistic observation is one of the most-valid method to assess social competence. The process of defining target behaviours, observing and recording their occurrence in the natural environment, and analyzing the data provides the most direct and ecologically valid assessment of students' social competence (Elliott et al., 1987; Feindler & Ecton, 1986). Naturalistic observation allows for a functional analysis of the environmental antecedents and consequences that may be acting to either maintain socially inappropriate behaviour or prevent prosocial behaviour. This approach defines social behaviour operationally and designs observational systems for measuring and recording target behaviours. Data can be collected continuously, thereby providing an extremely sensitive index to changes in students' responding (Feindler & Ecton, 1986).

This approach emphasizes that specific behaviour(s) must be emitted in the context wherein observation occurs. It is difficult to determine whether performance deficiencies observed
in isolated contexts are due to missing requisite skills or interfering cognitive states (e.g., poor problem solving, impulsivity). Therefore, if the behaviour is not performed during naturalistic observation, role-play assessment can be employed wherein specific situations are created to elicit target responses.

(ii) Role-Play Technique

Role Play Technique is an alternative method of naturalistic observation and is both flexible and comprehensive (Beck, Forehand, Neeppe, & Baskin, 1982). In this approach, students' behaviour is elicited in response to various staged social interaction, while their performances are recorded. Role-play procedures have become increasingly sophisticated in recent years. For example, Dodge and colleagues (Dodge, Pettit, McClaskey, & Brown, 1986; Pettit, McClaskey, Brown, & Dodge, 1987) operationally defined 17 behaviour categories (e.g., strong demand, requests for information, contentions/disruptive, gives information, incoherent behaviour) for assessing students' peer group entry skills and response to provocation during an analogue play situation.

There have been several criticisms for role-play technique as they possess lack of correspondence naturalistic observations, teacher ratings, and sociometric status, (e.g., Matson, Esveldt-Dawson, & Kazdin, 1983; Van Hasselt, Hersen, & Bellack, 1981). However, recent advances in role-play methodology (e.g., Dodge et al., 1986) have increased their generalizability
to naturalistic observation (Merluzzi & Biever, 1987; Pettit et al., 1987). In addition, role-play procedures allow for a general (though superficial) assessment of students' social-cognitive problem-solving skills through the spontaneous generalization of solutions to hypothetical problems (Feindler & Ecton, 1986).

There are many advantages of role play technique. The role play technique provides a means to elicit responses not easily observed during naturalistic observation. However, determining whether observed performance deficits are due to missing requisite skills or strategy errors requires conducting a task analysis (Howell & Morehead, 1987, Kaplan, McCollum-Gahley & Howell, 1988). Information obtained from task analysis facilitates identification of missing requisite subskills that can be targeted for intervention, or erroneous strategies which, in turn require further assessment on specific problem-solving measures.

3. Physiological Assessment

Now-a-days it is being believed that social competence is significantly influenced by brain activities. Taking this view into consideration social competence is being studied in the light of some neurological functions. For example, Golden's Luria-Nebraska Neuropsychological Battery established a psychometric method for surveying major functional brain symptoms (Golden, Hammeke, & Purisch, 1980). Measurements of intelligence
from the Luria-Nebraska battery are designed to indicate current functional levels and to discriminate between brain-damaged normal patients. While the battery has been criticized (Speirs, 1981) as not providing a comprehensive neuropsychological assessment, it nonetheless remains of interest to researchers interested in social competence. The battery establishes a model that incorporates the neurosystem concepts, attempts to measure functional skill, and is sensitive to prefrontal brain dysfunction which is related to social competence.

Another battery, the Kaufman Assessment Battery for Children (Kaufman & Kaufman, 1983) was developed from neuropsychological theory and provides a starting point for planning a social competence assessment. Though this battery was not designed as an instrument measuring social competence, it offers insights into methods for measuring social problem solving skill, social knowledge, and social flexibility. Many of the subscales investigate the child's abilities and perceptions in relationship to social information. The battery attempts to assess both social and academic problem solving styles.

Thus, we have discussed about the various techniques for assessing social competence. The assessment of social competence is still in the developmental stage and every approach has its own limitations. Recently, Hughes and Hall (1987) have highlighted limitations of current approaches to the assessment
of children's social competence and propose a conceptual model of social competence to serve as a framework for selecting an assessment technology and to stimulate researches on assessment. The model presented by them is based on an information processing view of social competence and integrates social-cognitive and behavioural assessment strategies.