

CHAPTER 1. INTRODUCTION

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CHAPTER 1 INTRODUCTION

This study evolved as a result of observing that some children in preschool populations found it very difficult to become part of the preschool group or develop satisfying relationships with their peers. Teachers often commented that such children would, in the future, "have problems" at school. Often these very same children were later diagnosed as having learning problems or did poorly in primary and in high school or even dropped out of school. This led the researcher to question if there was something that could be done to prevent such children "having problems" later on.

It was decided that the psychological constructs for social relationships or developing social competence, needed investigation. Having looked at the literature, it was obvious that there was little literature which looked at social competence from the perspective of what influenced its development and what the construct involved. Many studies existed which linked family discipline style or general approaches to parental practices in childrearing; mother-child attachments; influence of siblings, peers, or caregivers; to social competence. A great deal of the literature investigated peer rejection but little explored what contributed to peer acceptance globally. Hence, the literature was "organised" into two main areas: firstly, what influenced the social competence of a young child (see Chapter 3) and secondly, what areas of knowledge were necessary for social competence (see Chapter 4).

As a result of searching the literature, many domains were seen as affecting social competence. A large number of factors were correlated with this construct and were organised into five groups of skills and behaviours, such as, effective processing of social information, adequate communication, effectual understanding and expression of emotions, self attributes and effective social interaction skills and behaviours.

1.1 Definition of Terms

Social competence appears to be a multi dimensional, interactive, psychological construct which can be implied through observation of social skills and behaviours of children in various social groups over time. It seems of vital significance at this point to establish the relationship between social cognition, social knowledge, social skills, social behaviour, social competence and sociometric status in view of investigating what young children know, and

how this relates to social competence and social status because of the complexity and nature of the construct.

Social Competence is a term which has over the years been defined in both broad and specific conceptualisations by many researchers. Bailey and Simeonsson (1985, p. 20) defined it as,

the ability to engage with adults or peers in interactions that (a) either elicit nurturing environmental responses or achieve desired goals, (b) are mutually satisfying to both child and the person with whom he or she is interacting, and (c) are consistent with the adult or peer expectations for socially competent behaviour.

Hill (1989) proposed that it was the ability to initiate and maintain satisfying relationships with peers. Katz and McClellan (1991) defined it as initiating and maintaining satisfying relationships with peers but that it depended on many kinds of social understanding and interaction skills. Children's knowledge eventually is demonstrated as behaviour. It is necessary to define terms such as social exposure, social observation, social participation, social knowledge, social cognition, social skill, personal characteristics, social behaviour, motivation, social competence and high sociometric status which are related to the changing process.

Social exposure refers to a child being in the presence of peers in their social environment, that is, being physically present and having the opportunity to observe or participate in the peer group. For example, a child who attends preschool has social exposure. Social exposure is necessary for learning about and understanding the social world of peers.

Social observation refers to the ability to watch peers participating in their social environment. It is one way to acquire social knowledge.

Social participation refers to a child being actively involved in the peer group, for example, at play with others. Social participation cannot only be a way to learn social knowledge, but it can also provide opportunities for practising social behaviours.

Social knowledge refers to the information collected and reflected upon by the child regarding the functioning of the peer group. In other words, it refers to the child's perception of the workings of the peer group.

Bye and Jussim (1993) define social knowledge as what a person knows about human interaction. Social knowledge includes both self awareness and procedural knowledge. Procedural knowledge refers to clusters of information about patterns of behaviour expected in various situations (schemas, scripts and prototypes). However, these authors include social performance which refers to people's behaviour in social situations and social competence which is viewed as the quality of various social performances. They emphasise that social knowledge is necessary but not sufficient for appropriate social behaviour. The use of social knowledge is dependent on environment, psychological makeup, processing capabilities, goals, anticipated outcomes and motivation.

Social cognition refers to the process of thinking about what has happened in social interaction; making sense of the information and deciding what is effective social information, and what is not.

Social skill refers to the possession of the knowledge for the enacting of an effective behaviour. In other words, it refers to knowing what to do in a particular social situation although it does not imply having a set of skills.

Personal Characteristics refers to those characteristics that are part of genetic makeup. For example, having a happy disposition, being stubborn, having an expressive face, or being outgoing, all contribute to our ability to relate to others and can affect our social behaviours and so too our sociometric status.

Social behaviour refers to those effective social actions, displayed within the peer group, that have resulted from acquisition of quality social knowledge. It requires a transformation of the knowledge. These behaviours may be part of those needed for social competence.

Motivation implies the desire to improve performance. Many children have the knowledge and skills for forming satisfying relationships, but do not always use this knowledge as part of their behaviour. Hence, motivation refers to wanting to use that knowledge for initiating or maintaining effective social relationships. Motivation requires that knowledge and behaviours be directed toward some end (a goal) and hence are intentional. To be motivated to use effectual social competence knowledge as effective social behaviour, implies that there is a goal, that is, the goal to be liked and conform to the peer group rules.

High sociometric status implies being popular or having a number of reciprocated friendships. It requires a number of effectual behaviours.

1.2 The Relationship Between Social Knowledge and Behaviour

Knowing what to do in a social situation requires thinking. To translate social knowledge to social behaviour requires freedom from anxiety and inhibition and reinforcement from others (Schneider, 1987).

Figure 1.1 indicates the relationships between the processes of acquiring knowledge and translating that knowledge into behaviours. When young children are exposed to peers in the social world, such as in preschool, they often observe others and participate in social interaction. The observational and experiential process, thus, provides children with a great deal of social knowledge. Social knowledge becomes elaborate with new observations and extra social experience, and may also lead to social skill acquisition.

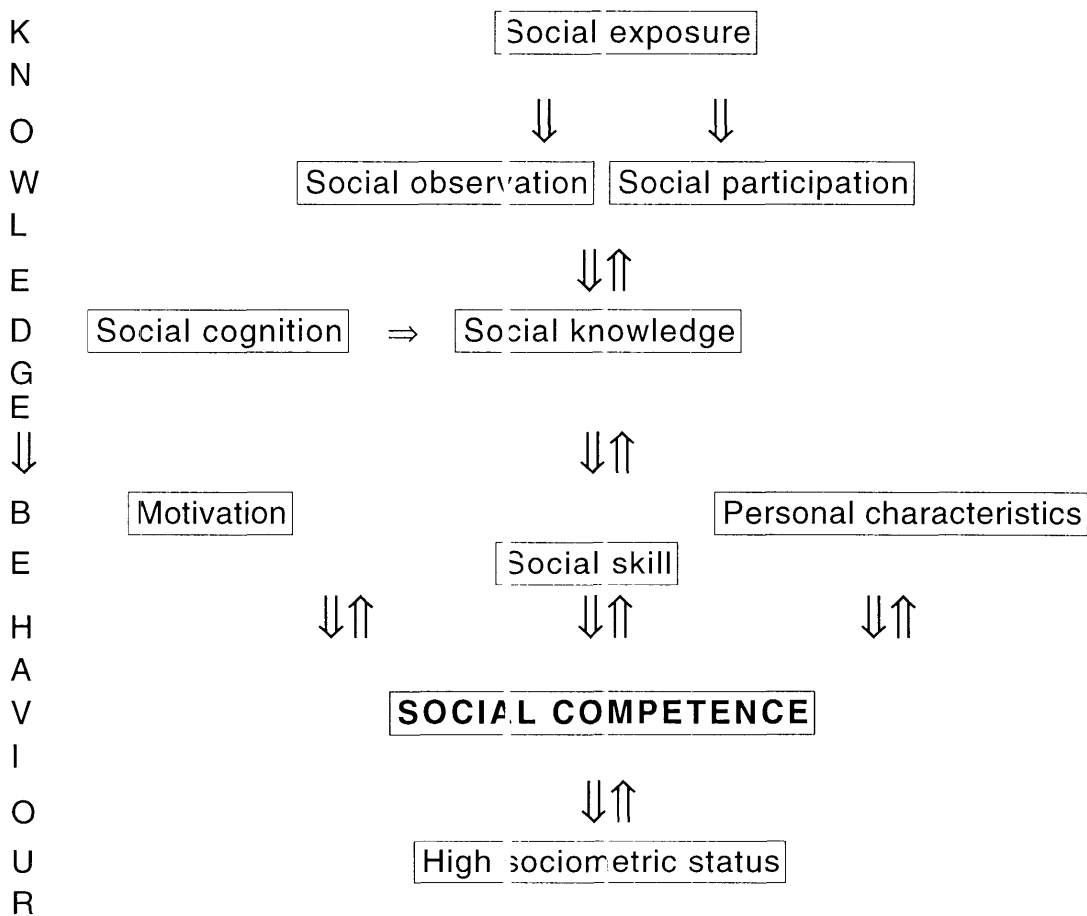


Fig 1.1 Relationship between Social Constructs

Children cognise or think about the information, and decide what is "useful" or "not useful". For example, they may reflect later on the reasons for an occurrence in the playground and another child's behaviour, to gain understanding. This process of thinking may occur consciously or unconsciously. The process of thinking about what is appropriate and effective social knowledge aids in the formation of social skills. When a child has thought about how to act in a particular social situation, that is, he/she has thought about the causes and consequences or possible actions and reactions to social interactions, then the knowledge gained may be used to guide behaviour in future similar situations. Hence, the child has learnt a social skill.

A child may use a strategy and it does not work eg. attempt to join a group by proposing an idea for play and be excluded from play. Hence, the child may try a different strategy next time. However, if a positive reaction is received (reinforcement for the behaviour) then the child may include this in his/her repertoire of behaviours. By thinking about numerous social situations over time, many social skills are learnt. Possessing a large number of social skills leads to social competence which then leads to high sociometric status. Children with high sociometric status often are included more in social interaction and so gain more social experience which may improve their social skills even further. Hence, high status often increases the opportunity to gain more skills and so too, produces a self concept favourable to interacting even more.

Of importance in the formation of social competence is motivation. Children will not participate in social interaction effectively, unless they want to become accepted as part of the group. Some children such as gifted children may receive more pleasure from challenging mechanical activities rather than interacting with people.

Personality traits are also important. Children who are outgoing as compared to very shy or introverted children tend to socially interact more. Children who appear to be happy as opposed to being sad, may receive more invitations to interact.

The role of children's social cognitions in the origins of behaviours appear to be associated with sociometric status ie. those children who are deficient in social knowledge may be viewed negatively by their peers. Children's social-cognitive functioning is recognised as a series of complex phenomena.

Dodge and Feldman (1990) propose three possible causal pathways which may occur between social cognition and sociometric status, though, they are not mutually exclusive but may operate in tandem. The three causal pathways are:

- The child's cognition of the world may lead to behaviour that causes a peer to see the child as 'likeable' or 'unlikeable'. Intervention which attempts to change social cognition should thus improve social behaviour and as a result improve sociometric status.
- Acquisition of a particular sociometric status leads a child to cognise the world in a particular way. A rejected child will experience negative behaviours from peers which will in turn cause the child to react in self defensive ways and avoid certain situations.
- Children's social cognition may maintain and perpetuate a child's sociometric status without leading to the acquisition of status in the first place. Aggressive and rejected children view the world as a hostile place which leads to aggressive behaviour toward peers.

Dodge and Feldman (1990) state that there are three consistent differences in relation to social cognition and children's sociometric status, especially between high and low status children. Firstly, low status children tend to exhibit more deviant and less sophisticated patterns of behaviour such that low status children attribute intentions in biased and inaccurate ways. Secondly, status differences reported vary with age and sex of the children being assessed and the situational cues that are the stimuli for the assessment i.e. deficits and processing bias are not due to general intellectual or processing deficits but are specific to particular situations and circumstances such as stressful or threatening situations for their age and subculture. Thirdly, that there should be further research performed to find restricted situations and circumstances in which social-cognitive deficits and biases are likely to occur amongst low status children. Thus sociometric status may be a function of the equivalence between a child's social-cognitive skills and the situational demands of the peer group.

In this study, it seemed necessary to find out what were effective knowledge, skills and behaviours pertaining to social competence; and what preschoolers knew (what they would 'say', 'do', 'think' or 'feel' in particular familiar situations). This would then identify what was acceptable behaviour from the

peer group perspective. By identifying children with high status (social competence), and how they behaved, it was anticipated the researcher would then be able to determine what were the acceptable knowledge, skills and behaviours. By identifying children with low status or those who lacked social competence, it was anticipated that ineffective or unacceptable knowledge, skills and behaviours could be identified. Thus, of crucial importance to the study was the allocation of high and low status to the children in the study. If they were not correctly "labelled", then identification of effective and ineffective strategies and behaviours would be impossible.

1.3 Significance of Social Competence to Education

Social competence affects the ability to learn in the classroom (Ladd, 1990) and success in social relationships; is a reliable indicator of adjustment in later life (Asher, Renshaw, & Hymel, 1982; Parker & Asher, 1987). If social competence can be taught or learnt in preschool and in the first two or three years of formal school, then children may become more comfortable in a classroom with peers. All children may reach their academic potential. School may become a more comfortable environment for more children.

For this to happen, children with little social experience or children with few prosocial skills need a more supportive environment from teachers and peers. The social context of school thus needs to be supportive regarding social relationship formation.

1.4 The Study

The problem was to find out which knowledge, skills and behaviours were required for social competence in young children and how this knowledge could be used to improve young children's social competence.

A checklist was devised from the literature to determine which behaviours and skills were relevant to preschoolers and their social relationships. A program for teaching/ learning effective social relationship skills and behaviours was then developed using those same areas from the checklist. The program was to be taught to the whole class to examine how the preschool context could be changed and how having a supportive environment for social relationship formation, could affect the social competence of children in each group. As part of the investigation it seemed necessary to find out what young children "know" and what was acceptable to them.

The research is explored through four research themes. Research theme 1 focuses on what young children know or on a child's knowledge of the mental states of the self and peers. This account of what young children know is examined from the perspective of the child. Each child in the study was interviewed to find out what (s)he knows. (S)he were also asked what (s)he thought, what (s)he would say, how (s)he would feel, or what (s)he would do, in various social situations. Interview questions explored general thoughts about friends, attending and listening, emotions, communication or joining groups, self, and understanding of intentions.

Research theme 2 focuses on what young children know and the skills they have, regarding social competence. This was viewed from the child's, the teacher's, and the researcher's perceptions in the preschool environment. Teachers who worked with these children learnt what they knew through observation, conversations and declarations by the children themselves over time. The teachers were able to indicate to the researcher a broad spectrum of behaviours and skills pertinent to each child, by filling out individual checklists. The researcher spent a great deal of time in the preschool and was able to converse with and observe the children's behaviour. Anecdotal records were kept. The researcher was able to verify the teachers' observations.

Research theme 3 focuses on the constructs associated with social competence. This theme examined the relationship between general skill areas and behaviours. It also examined the behaviours which are most frequently associated with high or low status.

Research theme 4 focuses on the efficacy of the social competence program on the dynamic social interactions within the groups. Each group was unique and consisted of children with different social experiences and strategies for social interaction. Each preschool (the Intervention Group and the Non-Intervention Group) was very different from the other, even though the teachers from each were nurturing and supportive of the children.

Sociometric ratings were used to verify each child's perceived sociometric status. Sociometric status is an indicator of skill level. It was also deemed important to discover the similarities and/or differences in skills and behaviours between various age groups, gender and children displaying high and low sociometric status. Observation was used to verify status and to determine if any other behaviours were necessary. Data were analysed using

a predominantly qualitative approach although some quantitative measures were used to support data.

In the next chapter the theoretical framework for social competence is discussed.

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CHAPTER 2. THEORETICAL FRAMEWORK

Theories about how children think and learn have been forthcoming from educators, philosophers, and psychologists for centuries. How we believe children learn and think will be reflected in how we teach children. Over the past thirty years, different theorists such as Bandura (1973, 1977); Piaget (1962); Vygotsky translations (1962, 1978); Sternberg (1990) Wellman (1990); Perner (1993); Flavell (1985;1990); Mulcahy, Short and Andrews (1991), and Gagné (1985), to name a few, have sparked more interest than others at various times. In this chapter a theoretical framework for the content area of social competence will be constructed, predominantly based on the "theory of mind" framework. However, because the theory of mind framework is content specific as a theory in regard to social competence, other prominent theorists and theories are described and discussed briefly; and their relationship to social competence is discussed.

2.1 Theories of Development of Cognition

It is over thirty years since the publication of Piaget's (1962) *Play, Dreams and Imitation in Childhood*, Vygotsky's (1962) *Thought and Language* and Bandura's (1959) initial work (with Walters) *Social Learning and Personality Development* which were the beginnings of major theories on children's social relations and cognitive development. It should be pointed out that at times, these theories have been misinterpreted or underestimated. Hence, over time there has been a development in the interpretation of the theories themselves.

The theories mentioned previously, provide a general framework for how children gain knowledge (learn). It is the intention of this author to discuss the ideas of some of these theorists, often with the help of others such as Trudge and Winterhoff (1993), Grusec (1992), Wertsch and Stone (1985), Cole (1985), Rommetveit (1985), and Nicolopoulou (1993), who have devoted a lot of time to the interpretation of the above theorists (see Table 2.1). However, because this thesis examines how young children make sense of their social world and in particular, what young children know about that world, and their social relationships, a theory more specific to this area was chosen.

Table 2.1 Brief summary of Relevant Theories

Theory	Assumptions	Construction of knowledge	Importance of play	Value of Emotions	Major contributions
Vygotsky's sociohistorical theory of psychological development	Processes of development are part of sociocultural development	Knowledge constructed through social interaction and sociocultural tools	Contributes to rather than reflects cognitive development	Incomplete work in this area. Related emotions to mental functions	Stresses the importance of social interaction in learning
Situated Learning	Learning is dependent on context and people's motivations are connected to culture	Knowledge concepts are both situated and progressively developed through practice	Not specifically mentioned	Links motivation, situation, knowledge and behaviours	Connects the person, the activity, knowing and the social world.
Information processing	Memory organises information and transforms learning into new cognitive structures	Links new learning to schema	Not specifically mentioned	Not specifically mentioned	Identifies active processes in learning of new information and problem solving
"Theory of mind" socio-cognitive theory	Knowledge of world represented in mind & metarepresented	New knowledge continually adapted to & 'pushed down' onto old.	Social pretend play: essential for sharing emotions and construction of representations	State of mind that is represented	Unites psychologists', educators' & philosophers' theories of learning

2.2 Theories of Development of Social Competence

When considering theories that explained the development of social competence in young children, it was important to consider many areas that corresponded to the author's perceptions of what was required and how it was attained. Such areas for consideration were that the theory:

- be applicable to young children aged between three and five years;
- focus on learning as a social process rather than as an individual process;
- emphasise the importance of more competent peers in extending others' knowledge;
- express the importance of context or situation to learning and cognition;

- contain an explanation for the acquisition of social knowledge in relation to making sense of the world; by changing and refining that knowledge over time as social awareness increases and strategies develop, that is, as metacognition occurs;
- provide a framework for knowledge being translated into action (behaviour);
- recognise the importance of play as a tool for organising cognition, promoting social interaction, and a means of separating the real world from the world of pretence;
- reveal the importance of motivation in the context of preschool to performance (situated motivation);
- allow for inclusion of personal characteristics because of their importance to motivation and behaviour;
- stress the importance of interpreting others' thoughts;
- provide for inclusion of self understanding;
- focus on emotions because of their importance to understanding others and their behaviours;
- includes communication as a necessary part of the process;

Some of the relevant theories regarding young children's learning are discussed because of their significance to social competence knowledge acquisition. In other words a theoretical framework for social competence was constructed.

2.3 Relevant Theories

In this section theories, relevant to the acquisition of social competence, will be discussed. Information Theory provides a framework for the mechanics of how knowledge is processed in the mind; Theory of Mind expresses how young children think and continually modify that knowledge about the social world; and Situated Learning accounts for learning and cognition to occur in contexts for action or doing and considers motivation as well.

2.31 Information Processing

Information Processing Theory, has been included because it is a necessary feature for general learning rather than a theory for explaining the acquisition of social competence. Social skills acquisition is dependent on being able to attend to, select, organise, adapt, monitor, and remember relevant information. Such processes have been referred to as the pre-requisites for learning throughout this thesis.

Information Processing although developed as a group of theories by a number of theorists will be discussed according to Robert Gagné's (1985) theory. He was a psychologist whose intent was to improve instruction to Air Force personnel during World War II. He identified five distinct domains of learning:

- verbal information
- intellectual skills
- cognitive strategies
- motor skills and
- attitudes

He later identified internal states of the learner required for learning in the above areas. These information-processing steps essential to learning were identified as well as the instructional supports needed to enhance all of the steps.

The information processing approach concentrates on two general aspects of learning, that is, processes by which a person acquires and remembers information; and the process for problem-solving. These two systems are functionally independent but are interconnected.

2.311 Acquiring and Remembering Information

In acquiring social competence knowledge, a young child selects appropriate information or effective strategies and stores the knowledge, for future use in similar contexts. The acquisition of the knowledge and the use of it as part of behaviour requires information processing abilities for acquisition and remembering.

The human memory actively selects information which is to be processed (attends to stimuli), transforms or organises it into information that is meaningful (encodes stimuli) and then stores relevant parts for later use (storing and retrieving).

Information is registered via the senses (iconic and echoic memory), is stored in the short term memory as a result of pattern recognition, and if the information is important, it may be transferred to the long term memory. Information that is processed is under executive control, and must be transformed to a representational form of knowledge. Interconnections exist between processing units which explains why we can process several pieces of information at once.

Attending to stimuli is of major importance. Because a large amount of information enters the sensory registers at the same time, only a small amount of incoming stimuli can be attended to at once. Selection of the information occurs in order to process it further. Skills that are practised regularly can become automatic as they do not require conscious control, for example, considering of others. Others need conscious attention and effort (metacognition), for example, performing a new task.

Storing information in the memory is dependent on people's existing schema, their attention, their depth of processing such as maintenance and elaborative rehearsal. Elaborative strategies consist of additional verbal propositions, imagery and mnemonics which aid retention and later recall (Gredler, 1992). The use of strategies is an integral part of metacognition also.

Representational knowledge may be stored in either of two ways, that is, two theoretical frameworks. They are the *dual code representation* (visual and verbal images), and the *verbal code* system. The verbal code theorists represent knowledge as:

- propositions (smallest units of knowledge that can stand alone eg. true/false units);
- productions (condition-action pairs eg. if /then units); and
- schemas (larger organisations of knowledge eg. scripts for going on holidays).

Schemas change as new information is gained (Gredler, 1992).

Information is stored in a summary form and when retrieved must be reconstructed, by interrelating it to its parts, for example, when trying to remember someone's age, a related event may be recalled, and the age worked out through a series of associations.

2.312 Problem Solving

Problem solving is essential to social interaction especially in interpreting the behaviours of others. Problem solving is the ability to perform a new task for which there are no instructions for the solution, for example, puzzles, riddles, and mathematical problems. It relies on using existing structures of information. Strategies for problem solving have been investigated, expert versus novice knowledge has been researched to understand how problem solving occurs. Many models have been proposed and include problem solving by:

- heuristic
- algorithm
- analogy

The information processing approach assumes that psychological structures, such as concepts, intelligence, working memory, formal operations, etc., which are present in people's minds and which explain their behaviour regardless of social practices, their cultural environment, or an individual's relations to other individuals. In other words, knowledge is individually constructed internally, from external reality. The individual thinker is non social.

The next theory discussed is social and relates the person to learning in a context.

2.32 Learning as A Situated Activity

Cognitive Apprenticeship, Situated Cognition, Situated Learning, and Legitimate Peripheral Participation are synonyms for learning as a situated activity, that is, learning is context dependent. Such theories about learning are important in the establishment of a theoretical framework for social competence. For example, a young child learns social competence knowledge and how to behave in a particular context such as a preschool or a small group within a preschool. When the context is changed, the knowledge

is then changed or adapted (transfer occurs). Such theories stress that learning and cognition occur in contexts for action or doing. The theories explore the idea that knowing what (knowledge) and knowing how (doing) are linked to participation within a "culture" and relate to motivation.

Brown, Collins and Duguid (1989, p. 32) perceived Situated Cognition as participation in the situation and argue that "knowledge is situated, being in part a product of activity, context and culture in which it is developed and used". For example, the interdependence of activity, concept, and culture enables young children to apply information learnt in a particular situation such as how to react to an accident in preschool, to new situations or at home. Palinscar (1989, p. 6) questions the term "culture" as there may "diametrically opposed viewpoints" rather than a "single shared culture". Perhaps the "peer group" rather than "culture" may be a more effective term especially in the case of the previous example. Brown et al, (1989) perceive that concepts are both situated and progressively developed through activity or practice. Participation is important to "knowing how" and so too, is the community involved. Community members have complex socially constructed "ways of doing".

Collins, Brown and Newman (1989) describe *cognitive apprenticeship* as the learning of skills and knowledge in a social and functional context. They provide an analogy of learning to being in an apprenticeship.

Lave and Wenger (1991) introduce the concept of *legitimate peripheral participation* which connects the person, the activity, knowing and the social world. The person is a practitioner whose changing knowledge, skill and discourse are part of a community. The situated learning activity takes place through participation in a practising community and is motivated by the growing use of value of participation and a desire to become fully practising. Knowing is intrinsic in the growth and change of identities through the social organisation. Activity and learning takes place in a social world. Of particular importance is the concept of motivation which is embedded in the context and the culture. Paris (1994) uses a term "situated motivation" which refers to a person's motivational beliefs and behaviour that result from contextual transactions and goals. For example, a preschooler who was motivated to be the "boss" or control others would have a different set of knowledge and behaviours from a child whose goal was to be liked by peers.

In the context of the preschool, Lave et al (1991) provide an appropriate framework. The young child is a practitioner whose knowledge, skills and discourse change and develop as part of the group (class and friendship group). Learning takes place through participation. Motivation is gained through a feeling of self worth and the desire to become part of the group. Social organisation and social rules influence the growth and change of knowledge.

The criteria satisfied by this theory are the focus of learning as a social process; indirect reference of more competent peers in extending knowledge; the importance of context or situation to learning and cognition; acquisition of social knowledge by making sense of the world, by changing and refining knowledge; and the importance of motivation in the context of preschool to performance (situated motivation).

This theory generally addresses knowledge in a context but not content specific knowledge. This content specific knowledge is discussed in the theory of mind framework.

2.33 Theory of Mind

"Theory of mind" is a relatively new theoretical framework which satisfies most of the criteria the author listed for a social competence theoretical framework. Criteria satisfied are: it is suitable for young children; it views learning as a social process; it accounts for the acquisition of social knowledge, and changing and refining nature as more knowledge is acquired (metacognition); it provides a framework for knowledge being translated into action (behaviour); it emphasises the importance of interpreting others' thoughts and understanding the self; it provides a framework for emotions and communication; it addresses the importance of more competent peers in extending others' knowledge; and discusses pretence in knowledge acquisition. Because the primary focus of this thesis is to understand how children make sense of their social world especially in regard to social relationships, this framework was chosen as the principal theory.

This theory focuses on a child's knowledge of the mental states of the self and other people or what is referred to as "theory of mind" (Feldman, 1992). It appears that understanding of the processes which underlie cognition, perception, emotion, intention, belief and other mental states and activities are thought to be critical contributors to competent social interaction, because

understanding another's mental states may aid in the making sense of other person's behaviour. In terms of cognitive development, a "theory of mind" is defined as "the ability to impute internal states to self and others" (Premack & Woodruff, 1978 p. 156).

"Theory of mind" is used in three different ways: firstly, as a designated research area; secondly, as children's general folk psychology or commonsense knowledge; and thirdly, as cognitive development in terms of theory formation and theory change. The research in this thesis used the third view, that is, it examined the way a child's social cognitive development occurs as they observe and experience their social world and so change their views of that world. It examined a "theory of mind" for social competence.

Wellman (1990) proposed that three criteria must be met before accrediting children with a theory of mind:

1. the individual should have basic constructs or categories for defining reality;
2. such basic constructs or categories for defining reality must be organised into a coherent system of interrelationships; and
3. the individual must have developed a causal-attribution framework of human behaviour.

Wellman (1990) states that the majority of children by the age of three years meet the above criteria and so have a theory of mind.

Bretherton (1991) suggests that these criteria are met by some 20 month old children. Disagreement has occurred on a definition of a "theory of mind", as to whether it proposes an 'implicit only' or an 'implicit and reflective' view of the changing nature of the mind. It is the belief of the author that some three year olds will have an 'implicit only' view while others will have an 'implicit and reflective' view of the changing nature of the mind, but this will be dependent on the experiences encountered by a child. This will be related to such factors that affect the quality and quantity of social interaction experiences. For example, children whose parents use responsive language (elaborate, use reason and logic; encourage independence and autonomy; use nurturant control; provide opportunities for various experiences and encourage their children to socialise with peers, would tend to have an 'implicit and reflective' view of the 'theory of mind'.

The "theory of mind" view, perceives the young child as an active seeker of knowledge who thinks, and does so in a social world composed of cultural forces and communicating adults. The young child is at last recognised as having quite extensive and sophisticated skills for interpreting the behaviours of others in terms of underlying mental states (Feldman, 1992).

Areas in this theoretical framework that have been investigated are, children's knowledge of the differences between real and mental entities; the differences between real and pretend situations; between real and apparent entities; between knowing and seeing; between meaning and saying; small scale deceit or deception; understanding of false belief; and understanding of perceptual, conceptual and emotional perspective taking.

In this study, the author investigated what young children know about social competence in the preschool context and how this knowledge changed over time. The child's knowledge was investigated using the "theory of mind" framework because this framework best explores the way children learn about and change their knowledge of social competence over time.

2.3.3.1 Origins of Children's Knowledge of the Mind

Astington (1993) views the child's discovery of mind as different to a psychologist's investigation of the mind. She states that the child sees the mind as the *self* (me); an awareness of others' minds as *others* (him); false belief as *what I thought* and intentionality as *what I did*. The psychologist's investigation is very dependent on the child's expressive language. She further states:

“children acquire the theory unreflectively, without thinking of it as a theory. We can evaluate their understanding from the ways in which they account for and anticipate people's actions, but we cannot expect them to give a detailed account of the theory, of the rules, and principles underlying their explaining, and predicting. However, in order to investigate children's understanding of mind and their acquisition and their folk psychology, we need a precise description of these things.” (p. 19)

Psychologists attempt to determine what children are thinking, while children interpret what psychologists mean, and even what psychologists may think children want them to say. Bearing this in mind, there is often debate or conflict between various researchers' findings.

According to the literature, a progression or a developmental movement occurs as young children gain knowledge about the mind or create a "theory of mind". Theory formation according to Astington (1993) takes place within a particular culture. She states that initially innate structures or abilities exist to provide a starting state and are later transformed by experience. She also concludes that information processing abilities, for example, memory capacity exist in order to formulate the theories of mind.

Flavell (1990) states that children as young as two to three years of age have learned that they and others can "cognitively connect" to objects in the external world in many different ways. They have different ways of cognitively connecting such as hearing, tasting, smelling, touching, knowing, thinking, remembering, dreaming, imagining, feeling an emotion, and intending (Flavell, 1990). They are said to be at level 1. Wellman (1990, p. 88) however, suggests that children as early as age three have a "rudimentary but coherent mentalistic theory of human action". Bretherton (1991) may call this an "implicit only" view of the changing nature of the mind.

Children at this age do not perform well on appearance-reality tasks for "colour, size, shape, number, object presence, actions, emotions, and gender identity" (Flavell, 1990, p. 249).

According to Flavell (1990) they understand that these *cognitive connections*:

1. change over time eg. they feel angry now but they will be happy later,
2. are independent of one another eg. they can imagine an ice cream without seeing it,
3. are independent of other people's thoughts eg. another person may not want chocolate but they do,
4. are inner, subjective experiences eg. when a person laughs they assume that the person is experiencing an inner feeling of happiness.

Between age four years and five years children are thought to gain a new level of understanding about the mind or go through a "transition". Nelson (1992) states that this may seem to occur because children gain the ability to verbalise and clarify their understanding of their conceptions about the world. She also comments on the fact that most of the researchers have concentrated on mainstream Western European or American middle class

children, who usually have been exposed to conversation with their parents about their experiences, have listened to stories, and have been in early childhood educational programs. Hence, they have enough language experience to be able to now reflect. This is important to learning effective and appropriate knowledge for social competence. She (Nelson) feels that the age of transition could vary in different cultures.

Children after this transition are said to be at Level 2 or have the ability to form mental representations (see how an object appears to another viewer). Perner (1992) states that at approximately age four years there is a transition whereby children restructure and gain an understanding of false belief, deception, appearance from reality, and the ability to remember. Other social developmentalist researchers (Bretherton, 1991; Dunn, 1991) believe that this 'transition' may occur at an even earlier age.

Dunn (1991) believes that preschoolers manage to function effectively in the complex world of the family (naturalistic environment), as opposed to the hypothetical world of others. Dunn believes that most experimental studies focus on hypothetical situations. She believes that naturalistic observation of young children has three priori advantages. They are such that :

1. the social setting has real emotional significance for them;
2. in unstructured observation comments and inquiries that are generated by the children themselves can be monitored and studied as opposed to what the adult psychologist wants to impose on them; and
3. key processes that contribute to development can be generated in the context whereby a child is operating at maximum maturity.

Dunn, as a result of her studies in the family context, perceives that children's ability to understand feeling states, intentions and behaviours of others increases over the second and third years. She feels there are two main processes that are important for this growing development. They are firstly, the role of *discourse* about others' feelings and intentions and secondly, the significance of *emotional experience* in such developments. This is important for the attainment of social competence because being able to label, appropriately express and effectively interpret emotions is vital to behavioural interpretation of others and control of one's own behaviour. The results of her study are displayed in Table 2.2. This study focussed on a natural social environment, the preschool, whereby children are involved in discourse and

emotional experiences. It was an important context for and relevant to learning social competence. The "theory of mind" framework accounted for these aspects in the acquisition of social competence.

Table 2.2 Young Children's Understandings of Others within the Family

Processes	Child's abilities
Understanding of states, intentions, and behaviours through discourse	By 3 years of age children <ul style="list-style-type: none"> • anticipated and manipulated reactions of others • read others' emotions • used others to reach own ends • influenced the feeling states of others intentionally and practically by teasing, comforting, joking. • questioned and disputed the application of social rules themselves and others
Understanding of states, intentions, and behaviours through experience	Seem to recognise and reflect on family members' emotional states <i>before</i> understand and reflect on others' minds

2.332 Concept of Representation and Theory of Mind

Wellman (1990) believes that children as young as three years of age have a basic sense of mental representations like images, thoughts, dreams, memories, belief and it is part of their emergence of a theory of mind. He feels they understand that some mental entities are fictional representations (imaginings) and some are reality-oriented representations (beliefs). He refers to this type of understanding of mental representations as a 'copy' understanding. Young children can provide language to convey information of another's conviction as to real entities such as "*He thinks the pens are in the drawer*". He believes that four to five year olds, however, have an interpretational and constructive understanding of representation, that is, they are beginning to recognise representations as representations and are beginning to adopt a metacognitive policy about them. Then at about four years of age, a transformation occurs whereby the three year old's early understanding of mind changes into an active processing understanding (interpretive understanding of representation). Hence, representations become more diverse. Wellman (1990) also states that three year olds do understand that mental entities are private.

Perner (1993) believes that there are three levels of representation:

- *primary* which occurs in the first year of life whereby children are tied to reality by a "single updating model of a currently real situation", for example,

when looking at a picture they see it resembles an object. They can only conceive the real situation.

- *secondary* which emerges in the second year of life whereby children have multiple models that allow representation of different situations, for example, they know a picture depicts a situation. Hence, he names these children "*situation theorists*" because they can distinguish between different situations, that is, real or the mirror, real from pretend (hypothetical), and present from past. Thought equates with the situation being thought about.
- *meta* which occurs at around four years of age whereby children can properly "represent", that is, they become "*representation theorists*". Such children know that a picture is marks on paper representing something from which it was depicted. They also view thought as a mental state, representing what is being thought about. At this stage they understand that things are interpreted and that others can give different interpretations. Misrepresentation begins to be understood.

Perner (1993) outlines three criteria for distinguishing the mental from the physical:

1. *inner experience* (one's own mental state)
2. *theoretical constructs*: (used in explaining and understanding another's action)
3. *aboutness* (linguistic expression *about* something else ie. intentionality). This needs a representational view of the mind.

He further states that around the second year, children have some notion of mental as familiar from their inner experience and can partly use these theoretical constructs as a way of explaining and understanding others' experiences, that is, they are beginning to have a mentalistic theory of behaviour. However, a mentalistic theory of behaviour must be in place before a representational theory of mind can occur. Perner states that representation provides the basis for explaining what the mind is.

Feldman (1992) explains that recursion (linking new ideas or thoughts into old or reflecting back on itself) is a most important part of cognition since it makes reflection possible and allows one to go 'meta' on what was formerly new and 'pushes it down' into the old. This is a constructivist view of learning. She

also expresses the dependence of recursion on language, that is, that language is necessary for recursion. Dunn attempts to explain *how* a child moves from one state to another.

In this study, children were asked for their view of the social world by asking them what they would do, say, or think in specific situations. Their answers required an interpretive understanding of their "theoretical constructs", that is, by explaining and understanding their own and others' experiences. Linking new ideas or thoughts into old or reflecting, was a requirement also. This approach was a "theory of mind" approach.

2.333 Understanding Mental States in Social Interaction

Competent social interaction requires both an understanding of self (desires and beliefs) and having the capacity to understand and predict the behaviours and thoughts of others (beliefs and intentions). Memory is also important as knowledge of previous experiences and events are stored or recalled in order to reflect. Effective communication (language and non verbal communication or body language including a knowledge of emotions) is also a vital requirement of competent social interaction. Language is also part of thought as is social interaction.

2.3331 Self.

Knowing the self is a requirement for knowing others which is important in social interaction. Self is viewed as being important in the "theory of mind" framework. Certain aspects of self were investigated in this research, such as assertiveness, compliance, general moods, and what children perceived they did well. These aspects of self helped identify those important for social competence. In the social competence program one week was devoted to valuing self.

2.33311 Desire/ Beliefs/ Intentions

Desires, beliefs and intentions guide and direct behaviour. They are states of mind about other things, that is, one wants something, believes something or intends something.

Perner (1990) states that if people are regarded as rational beings then it is assumed that they will act to fulfil their desires according to their beliefs. They are ascribed an intentional state. Intentionality is accredited with three levels.

At zero-order level the system is given any credit for intentionality. At the next level, first-order level, the system has beliefs and desires but no beliefs about beliefs. It can affect what another person does but not what another person thinks. The next level, the second-order system is a recursive system which links new ideas or thoughts into old ones by reflection. This system assumes both self and others have beliefs and desires. It can affect the thoughts of others. This system corresponds to development of learning or cognition over time.

2.33312 Metacognition

Metacognition is a term which initially was introduced in the 1970s to describe the awareness of a person's understanding of thinking or knowing. Later it obtained a more broad definition which not only included having the awareness of the processes of thinking but also being able to control those processes. Hence, it refers to processes such as recognising that a strategy is needed, evaluating requirements of a task, choosing a strategy from an available repertoire of existing strategies, executing a strategy, and being able to monitor the strategy being used (Brown & Campione, 1990). Some areas of metacognition have been explored extensively, for example, metamemory, metastrategy, while others have received less research emphasis. Older children have received more attention than young children.

By participating in the peer social world, young children attempt to make sense of that world. For example, children interpret the actions of others; think about how others responded to their actions; interpret others' emotions; and decide what is effective or appropriate behaviour in particular situations. In interpreting the social world some naive reflection on events and information is required. Mancini, Short, Mulcahy and Andrews (1991, p. 195) perceive "social cognition as the activation of cognitive strategies". These authors view these strategies as a "repertoire of skills that facilitate the activation, regulation, and retrieval of information and also control activities such as self-monitoring, attention, comprehension and the problem-solving skills required for the immediate social situation." In other words, metacognition is required.

Metacognition assumes a second-order system of intentionality, that is, it is recursive (has beliefs about its own beliefs). Researchers vary in their opinion to the age that second-order beliefs occur. Perner (1990;1992;1993) states that second-order beliefs tasks are not attributed to children younger than 6 years whereas Sullivan, Zaitchik and Tager-Flusberg (1994) state that over

40% of preschoolers (range = 4 years 1 month to 5 years 3 months) and 90% of kindergarten children (range = 5 years 5 months to 6 years 5 months) are able to attribute second-order beliefs. They studied a group of children (N=87) from preschool, kindergarten, first grade and second grade. Second-order beliefs imply metacognition and thus, the ability to metacognise is present in most 4-5 year olds.

It is the belief of the author that this stage of cognition is reached especially in the area of social competence, from three to four years of age depending on the experiences encountered by the child. Most preschoolers would be functioning at this level for social interaction. This is displayed by their ability to understand deception, such as lies, secrets, tricks, and false beliefs which is a second-order level system or meta-level system.

Language, is important for a child to have the ability to make representations of the world and may be crucial to reflect on representations, that is, to enter the metarepresentational mode (Nelson, 1992). Reflection is a "self" process.

In this study, children were asked what they know about self and others to provide an understanding of what they believed and thought. Their understanding of self and others was indirectly ascertained by sociometric ratings. Children with high sociometric status appeared to be able to reflect because they had learnt to determine appropriate behaviours in various social situations. This was examined from the "theory of mind" perspective.

2.33313 Autobiographical Memory

Memory requires the representation of previous events, experiences, and ideas. To build onto existing social knowledge or to change and adapt information pertaining to personal experiences concerning the social world, memory about self is important. Although episodic memory exists prior to the age of four years, autobiographical memory (the ability to remember episodes from early years of life) develops around the age of four years (Nelson, 1992).

The age of onset of autobiographical memory varies and according to Nelson (1992) could be related to factors such as social class, language development and gender. For example, being a female, having parents from a higher social class and developing language early, are related to early memories. These factors are related to the way adults (parents) frame events both during and after events, that is, if parents narrate events explaining the "when" and "why" and make connections between the event and aspects of the child's

existing knowledge then the child will have a better recollection of what and how they know.

2.3332 Understanding Others.

In this section, aspects of self and others relevant to children, such as beliefs and intentions; false beliefs; and social pretend play will be discussed.

2.33321 Beliefs and Intentions

The young child has a concept of mental life which can theorise related, unobservable entities such as beliefs and desires in terms of explaining and predicting behaviour of others (Astington, Harris & Olson, 1988). Perner (1990, 1992, 1993); Wellman (1990, 1990a); Feldman (1990, 1992); Flavell (1990); and others have researched the development of children's theory of mind. Some researchers such as Harris (1989) believe that young children *have* beliefs and desires which they are able to report their content from about age two years; and they can predict other people's reactions by their imaginative capacity even if they do not share these same beliefs and desires.

In this study, the children were asked to indicate how they would feel as a result of a transgression and an accident. Their answers indicated whether or not they understood the intentions of the other. Understanding the intentions of others is related to "theory of mind" framework.

2.33322 False Belief

Perner (1993) states that children before 4 years of age experience difficulties understanding the nature of others' false beliefs. He also states that children from larger families are more likely to perform successfully on false belief tasks than those from smaller families. Astington (1993) assumes that the reason is that they have more experience of intense social interaction with their siblings and so have a larger data base for developing a theory of mind.

Boyes, Galperyn, and Giordano (1993, p. 8) support a Vygotskian perspective that "children operate under more sophisticated theory of mind when they are engaged in social interaction with more competent peers than when they are tested in a traditional false belief task".

This may be the result of a more comprehensible "shared framework". Peers and family are more familiar with each others' meanings and behaviours and

so find it easier to understand each other's meaning and so have a better shared framework.

In this study, children had to make sense of the preschool social environment, and this required having a shared framework. The interview helped to determine the beliefs of each child. At times, some children appeared to be misguided and had false beliefs about various situations.

2.33323 Social Pretend Play

Social pretend play constructs representations (both physical and psychological) without adult assistance. Often adults follow the child's lead when engaging in a pretend play activity. An agreement occurs both on the activity to be shared and the nature of the communication (Göncü, 1993). Children achieve intersubjectivity or a shared understanding among the participants of an activity (Bretherton, 1991). Achieving intersubjectivity is representational in nature and affective in origin. The origin of pretence is emotional and thus, children need and desire to share their significant emotional experiences with their peers. A similarity in children's emotional needs creates a joint focus in pretend activity (Göncü, 1993).

Göncü (1993) proposes that intersubjectivity in pretend play is constructed using a concept called *prolepsis* (presupposes sincerity of dialogue or trust, and that the listener will construct knowledge that the speaker presupposes). For example, when two peers pretend to be mother and father, they establish a frame of 'what it is to be' a mother and 'what it is to be' a father, and 'how' they should act. In other words, they come to an agreed understanding of a definition for each, even if they have to change or compromise their previous perception of a mother or a father.

Göncü (1993) suggests there are three processes involved in the development of shared representations:

1. *communication* ie. using language to share and enact their views about being a mother or father;
2. *metacommunication* ie. a continuum of messages thinking about, discussing, and deciding how a mother or father representation will be initiated, maintained and terminated; and

3. a *shared understanding* (intersubjectivity) for interaction i.e. understanding what it is to be a mother or a father. This involves negotiation of differences and constructing scripts (representations).

From 18 months to three years children communicate their views in and about social pretend play by means of nonverbal messages (facial gestures, exaggerated movements, voice inflection in brief verbal exchanges). At about three years, they develop verbal intersubjectivity and explicitly differentiate their communication and metacommunication; and from 3-5 years they understand and expand one another's ideas with increasing frequency (Göncü, 1993).

Kane and Furth (1993) view the 'shift' from communication to metacommunication during social pretend play as a co-construction of shared reality. According to Garvey and Kramer (1989) the linguistic devices used by preschool children when engaging with peers in pretend play are different to those used in non pretend dialogues.

Pretend play is related to this study, in that, this is an activity in which children engage in frequently and use to make sense of their social world. Although they were not asked specific questions about pretend play, they were observed using it because it appeared to be an important vehicle for communication, sharing of emotions and social interaction.

2.3333 Emotion.

Emotion or feeling is a mental state which can undergo representation. It is viewed as being involved in the evaluation or categorisation of the meaning of events and the guiding of subsequent behaviour. For example, if a child hit another child in the nose, pain would be felt causing the emotion of fear. Further encounters with the child would cause careful behaviour or avoidance.

Emotions are also used for interpersonal regulation. In other words emotion is also of major importance in the interpretation of others' emotional states (social referencing) and can be used to appropriately predict and respond to others.

Dunn (1991) discusses results from three of her longitudinal studies of second born children in their second and third years: six children were followed at 2-month intervals through their second year, six followed through their third year

and 43 families studied when the second born children were 18, 24, and 36 months old. All children were from middle- and working-class families and were studied in their homes. Typical family scenarios were examined such as disputes, cooperative pretend play, empathetic and prosocial behaviour, conversations about others, and jokes. Findings are summarised in Table 2.3.

Table 2.3 Young Children's Understanding of Others in Family Scenarios

Scenario	Age	Findings
Disputes	1 - 1.5 year	Simple teasing occurred eg. seize or remove object from siblings Children appeal to mother if sibling had been first to act in an aggressive or teasing manner. Rarely appeal to mother if act committed against sibling first. Shows anticipation of mothers' reactions.
	2 years	Teasing becomes more elaborate and frequent Grasp of what upset siblings Transgressor transforms identity
	2-3 years	Grasp how others will behave in relation to social rules (parallels language ability increase) Blame and give excuses (was pretending, was accident, can't do it, too tired, etc.) in appropriate manner to avoid disapprobation and shows are aware of mother application of rules varies according to intention References to intention more clearly expressed (not just rote learned responses)
		Show understanding of how excuses and justifications used to reach own ends differently for different relationships
Cooperative pretend play	1.5 - 2 years	Compliant participants with older siblings
	Up to 3 years	Innovative actors who anticipate goals and intentions of partners Demonstrate understanding of pretend role of other
Conversations about others	2 years	Attempt to join in conversations about others
	2.5 years on	Frequent inquiries about inner states and social rules Discussion of cause or consequence of feelings or inner state Intervene in conversations are relevant and contribute new information about others
Jokes	By 3 years	Have considerable and differentiated understanding of what is funny or offensive to others

From the information based on family studies, Dunn was able to conclude that:

1. from one year of age, children's understanding of others' feelings grows, especially an awareness of what distresses or amuses others.
2. then as times goes by, they then grasp how certain actions can lead to disapproval or anger in others or on the other hand that certain actions can comfort others, or amuse others and so on.

3. from one year of age, children respond empathically to others' distress, and show interest in the feeling states of others eg, the causes of pain, anger, distress, pleasure, fear, dislike and comfort in others.
4. from one year of age, they play with and joke about these feelings in others and tell stories about them.
5. from one year of age, they show increasing sensitivity to the goals and intentions of others.

She concludes that understanding of mental states (as opposed to emotional states) and intended actions seems to develop later at about two and a half years.

Children as infants encounter many opportunities that lead them to discover that a belief about the location of a hidden object may be false, for example, in games such as find the treasure, hide and seek. By approximately two and a half to three years they can spontaneously talk about discrepancies between expectation and outcome. However, there are fewer opportunities to discover that beliefs about emotion are false, that is, they are fooled, cues are subtle, or it is denied by the other party. It is not until children have the opportunity to discover that their display rules need to be different to their own real emotion, that they become aware of false beliefs about emotion, such as, receiving a disappointing gift.

Regarding the processes that might be involved in the development of such abilities, Dunn (1991) infers that:

1. children use intelligence on what matters to them most emotionally;
2. experience of mild distress and anger during family conflicts may contribute to the children's learning because emotions are aroused and their attention is heightened;
3. mother's behaviour during conflict is important, that is, she is more likely to reason with her child over disputes rather than other topics especially when her child is upset. In real life the emotional state of the child, the salience of the topic, and the mother's articulation of reasons and excuses are important to the experience. Dunn suggests that the combination of a powerful cognitive and emotional experience may contribute to linking of social rules and others' behaviour.

Dunn (1991) acknowledges that shame, guilt, and embarrassment develop later and that very young children do not grasp the notion that people can experience combinations of emotions. She states that by age two years children only have a rudimentary understanding of the causes of adult emotions within the family context. To her it seems unclear to what extent early understandings of mental states are dependent on familiarity of the person and the context.

The importance of the representation of emotions for social competence, from the "theory of mind" framework, was investigated in the research. Children were asked about emotional situations and how they would react to understand how they viewed their world. Teachers were also asked to complete the Hughes' Emerging Social Competence Inventory (HESCI checklist) to gain their perception of how the child was functioning.

2.33331 Real and Apparent Emotion

Harris and Gross (1990) state that children can learn to control their facial expression before they appreciate the misleading impact that such control will have on other people.

Normally, during an emotionally charged situation, appropriate thoughts and feelings are remembered rather than the facial expressions exhibited. Could it be that four year olds identify with the feelings (concept) in situations of false belief but only talk about the facial expressions (concrete) of others during such situations?

The writer believes that young children realise that showing disappointment is impolite or will offend. They do not verbalise it as it is too difficult to describe facial expressions and feelings. However, they can show you a picture of a correct response facially and emotionally as young as three years. This example shows a child's understanding of mental life from the "solipsistic" model (a child adopts certain ideas about the mind on the basis of self conscious introspection) and the "sociocentric" model (the child incorporates a set of concepts from the community). Gelman, Collman, and Maccoby (1986) showed that preschoolers have a good appreciation of properties that form a coherent bundle, when they were tested on a task that displayed coherence analysis. In this study children were taught that boys have androgen in the blood, whereas girls have oestrogen in the blood. They were then shown a picture of a boy who was named as a boy but had a girl's hairstyle and girl's

clothes, and so looked like a girl. Children correctly inferred that he had androgen rather than oestrogen in his blood. Hence, they attributed that property which was associated with the set of masculine properties that the boy possessed rather than the properties of clothes and hairstyles. What of emotion? According to Harris and Gross (1990) six year old children grasp the normal causal sequence and deviations from it, that is, when asked to give a reason for a story character's real emotion they focus on a regular cause (an antecedent or *event*); when asked to give a reason for a facial expression, they focus on a *motive*; when asked to focus the attributions of other people they focus on the *face*. Hence, children can seemingly conclude that the protagonist's experience constitutes real emotion whereas his/her display does not.

Understanding deception: Most four year olds, according to Harris and Gross (1990) find it difficult to distinguish apparent and real emotion not because they are slower to recall the entire story which an event and the emotions provoked, but because they have difficulty in identifying the protagonist's apparent emotion, that is, they claim that the protagonist will look how he/she felt. The production and understanding of pretend emotion seems to emerge in the second and third year of life (Bretherton, Fritz, Zahn-Waxler, 1986). However, pretence is not intended to mislead, whereas display rules are intended to mislead. Flavell (1986) has shown that four year olds understand that appearance and reality need not coincide. Perner, Leekham, and Wimmer (1987) have shown that four year olds appreciate how one person can have a true belief and another person can have a false belief about the same entity, and so the difficulty in understanding may be a result of lack of understanding of the causal links between them, that is, the recursive relationship of onlooker and protagonist mental states. It seems that a grasp of recursive embedding is needed for understanding of mental states and linguistic expression. Further research into whether there is parallel development of recursive thinking across social, mental and mechanical domains needs to be done. Further research may determine whether linguistic embedding keeps pace, lags behind or promotes recursive thinking that operates in nonverbal level. It is the opinion of the author that linguistic embedding lags behind.

Harris and Gross (1990) argue that by the age of six years children:

- distinguish between what someone really feels and the facial expression. Children of this age are aware that there can be a

mismatch between how they really feel, and the emotion that they display, or that others attribute to them. Also by this age children know that facial expression is a poor guide to how someone feels, whereas the situation immediately preceding it is a relatively sure guide. These researchers strongly suggest that six year olds do *not* have a behaviouristic conception of emotion.

- show an appreciation of the potentially private nature of real emotion i.e. others may not know what is really felt and may attribute a mistaken emotion to the protagonist.
- have some understanding that their mental lives may or may not be accessible to other people and that they can exert some control over what is accessible.

Even though the distinction between appearance and reality of physical objects emerges between the ages of three to five years, it is suggested by "theory of mind" theorists that the distinction between real and apparent emotion is quite limited until 6 years of age (Harris & Gross, 1990). However Harris and Gross concluded that: between the ages of four and six years, children begin to distinguish systematically between real and apparent emotion in diverse cultures, even in cultures where it is encouraged to hide their feelings, for example, Japanese. They have also concluded that by the age of six years children understand the impact of misleading onlookers, and are quite skilful at putting into words the kind of recursive, second order thinking that is required to understand deceptive ploys.

These researchers stated that as children grow older they can distinguish the difference between more display rules and with an increased complexity.

In this study, emotion was viewed as one of the most important subcategories of social competence. Emotion questions were included in the interview and the HESCI. Emotion knowledge and emotion regulation is closely related to behavioural regulation. Appropriate behaviour control is a precursor for social competence. One of the foci weeks in the social competence program emphasised emotions.

2.3334 Communication.

Golinkoff (1993) postulates that young children (infants and two year olds) attempt to contact the mind of another, not for sole purpose of satisfying mere

wants but primarily for the purpose of sharing and obtaining information. She states that evidence comes from existing research such as the fact that young children alter their communication for different interlocutors be they children, familiar adults or strangers; repair their communication attempts to convey meaning; and monitor others' emotions and perceptual experiences. She feels that infants (at least by the beginning of their second year of life) are aware that familiar others have emotions, perceptions, desires, and knowledge different to their own prior to their having the ability to comment on them. She severely criticises the research implications made by Shatz and O'Reilly (1990) which she states 'severely underestimates infant's knowledge of the communicative process'.

Bretherton (1991) states that three year olds have a quite sophisticated framework for a "theory of mind" and can say things about it in an adequately explicit manner. She too notes a difference between the experimental research and naturalistic observational studies, whereby in the latter young children are capable of more sophisticated skills.

In this study, communication was investigated because it is integral to social interaction. Communication implies appropriate expression and interpretation of verbal language, non verbal language, and emotions. However, emotions were viewed separately. Children were asked questions and their communication style was observed. They were also asked what they would say to a peer in a specific situation. The teachers were able to give their perceptions of each child's communication abilities in the HESCI. This information was used to help understand the children's "theories of mind". The social competence program included a focus week on attending and listening, to help improve children's communication abilities.

2.33341 Intentional Communication

Bretherton (1991) claims that infants initially exhibit caregiver-child interactions that do not communicate about a shared topic, for example, imitate facial expressions and some simple hand gestures; and turn take some of these actions.

At about nine months of age infants can intentionally establish and sustain attention on a shared topic in many contexts, such as, possess the ability to intentionally gain and guide another's attention through well timed and well directed gestures, such as pointing, gaze direction, etc. It is a basic

understanding that intentional communication can be achieved through minimal signals in a shared understanding (Bretherton, 1991). Because this system of communication is rudimentary, the infant is not always understood and so has some strategies to repair failed messages, for example, repeating gestures, adding others, or substituting another sign. That people can share understanding is a prerequisite for intentional communication (Bretherton, 1991).

At about one year of age, infant's language is added to communicating capacities even though gestures are still important. At this age Bretherton (1991) feels that infants have a rudimentary ability to impute mental states to self and other (implicitly) without reflectivity. She argues that they operate on an implicit theory of mind which she says is like a three year old operating with grammatical rules but without being able to state them verbally. During the single word stage, differential use of relational words (for example, allgone, up, and nouns) which take on meaning only in context of relationships among objects and actions) show the child's awareness of the listener's needs.

Toddlers (18-20 months) begin to talk about inner states (hunger, thirst, sadness and happiness). During the third year, there is an increase in the ability to talk about inner states which is an attempt to influence and persuade others (Bretherton, 1991). By age three years, children can discuss their reflections about emotions, beliefs, intentions, desires, thoughts, with more complexity (Bretherton, 1991).

In this study, children were asked about their thoughts and their knowledge. They were asked to reflect on social events.

2.33342 Certainty /Uncertainty

Expressing certainty/uncertainty of mental terms is a pragmatic function. Pragmatics is the study of the use of language in *context*, usually focussing on the intentional communicative process that words serve in daily use.

Moore and Furrow (1991) have examined children's understanding of the expression of mental states of certainty and uncertainty in relation to a child's theory of mind. Beliefs can be held with differing degrees of certainty. Verbs such as know and remember, presuppose the truth of the complement statement whereas think and guess exhibit some uncertainty. Results from a number of studies showing which mental term best describes the individual's mental state, are not entirely consistent. They indicate a difference of

capabilities assigned to a young child depending on whether research was experimental or through naturalistic observation.

According to Moore and Furrow (1991) experimental studies on the whole show that children's understandings of the presuppositions of mental terms such as know, think and guess do not start to be differentiated until about age four years. However, naturalistic observational studies show that internal state words appear from one year of age on in conversation ; two year olds have an implicit sense of a theory of mind and use such words such as *know*, *think*, *remember*, *forget*, and *pretend*; and by four years children have some understanding that *know* expresses more certainty than *think* or *guess*, that is, children begin to use mental state language to express degrees of certainty at age four years. This development is connected to a child's growing theory of mind which recognises mental states as representational and can recognise that beliefs can be true or false. Problems arise from the research such as:

- Whether the listener recognises that s/he is intended to recognise the mental states that use expressions of certainty or uncertainty.
- Observational studies are ambiguous and open to deductive explanations whereas experimental evidence is artificial and so may underestimate the ability of the child's competence.
- Research tasks require reflective ability for determining degrees of certainty.

This study required children to relate what they thought they might do or say or think in various situations in the preschool context. Often they related certainty and uncertainty about events. Hence, certainty and uncertainty are relevant to developing a "theory of mind".

2.33343 Language and Thought

There are many terms that refer to mental states. Our thoughts may be expressed as language in order to share with another or cause action. Speech acts or basic units of communication are combined with gesture and intonation to express attitudes to statements eg, desire (want, wish); intention (promise, will, won't); belief (know think); and emotions (sadness, happiness). We can conceal our mental states by lying when we don't want to reveal what is in our mind. By learning what others' thoughts are, enables us to predict and explain others' actions (Astington, 1993). We infer mental states from

expression in language and behaviour. *Thoughts* are mental states (beliefs, desires, intentions and emotions) that guide and motivate our behaviour. *Words* are the expression of those mental states in speech acts (assertion of belief, request desires, promise intentions, apologise for regrets). *Deeds* or behaviours are actions and interactions that children attempt to explain. Margaret Donaldson (1978) says that children interpret situations not words.

Language and thought are core concepts within the "theory of mind". In this study, language was used to explain thought.

2.33344 Referential Communication

When a speaker produces an utterance, a listener interprets the meaning of the speaker's words. At times however, the speaker's utterance is not an exact representation of the meaning, which can remain obscure. Listeners normally monitor their comprehension and are often aware of the words and grammar but are unsure of their meaning. Referential communication which requires precise explanation of ideas such as in didactic teaching situations in school and attending to directions are often used. For example, "Put the red hat on the box" whereby there are many similar boxes in the room but the child knows that there is a special box for hats. What is actually said is not what is actually meant. Ambiguity in such situations is not solved by the usual conversational strategies. Robinson, Goelman and Olson (1983) conclude that the ability to detect referential ambiguity depends on the ability to discriminate and attend to the literal meaning of the speaker's words. Bonitatibus (1990) concluded from a study using 46 first graders, that children capable of detecting the ambiguity of an utterance differentiate the speaker's words from their intentions, and those who do not recognise ambiguity do not.

How do children originally discriminate the speaker's literal meaning from the speaker's intention? Robinson et al. (1983) suggest that it is due to the effect of literacy, that is, oral language recall of a message or story usually repeats semantic content rather than exact words, whereas written language favours literal meaning of the writer rather than the intention. Bonitatibus (1990) argues that having messages in the written form emphasises their literal meanings. He concludes that the ability for children to distinguish between intention and meaning occurs at about age four years and is part of a more global reorganisation of the child's thought, that is, a child's theory of mind.

In this study, the researcher was continually attempting to understand what each child was meaning from their utterances. Likewise, children were attempting to gather meaning from the utterances of the researcher. Experience in interpreting the language and meaning of each child was important in producing meaningful research.

2.334 Theory of Mind versus Social Development

Research on child's theory of mind suggests that at age four children develop conceptualisations about others' thoughts, feelings, beliefs and desires (Wellman, 1990; Astington, Harris and Olson, 1990; Flavell, 1990; Perner 1993; Frye & Moore, 1991). At about this age (or a little earlier according to Wellman), a child realises that others have internal mental states and such states can differ from the child's own, such as, misrepresentation (Perner 1993 p. 112). On the other hand, researchers of social development (Dunn, 1988, 1991; Brown & Dunn, 1992; Lewis, Stanger, & Sullivan, 1989) contradict the age at which this knowledge is acquired. They espouse that this development of empathy and interpersonal conflict resolution can take place in toddlers as young as age two, and who are extremely aware of others' emotional states, beliefs, or intentions differing from their own internal states. Such research has also shown that two year olds often cleverly deceive others or sabotage others' desires (Hay & Ross, 1982; Caplin, Vespo, Pedersen & Hay, 1991; Zahn-Waxler et al., 1992).

Raver and Leadbeater (1993) propose that the differences that occur between the two paradigms (theory of mind and social development research) exist as a result of the differences of methods used. They propose that this difference in method is a result of "who participates, what they do, and where they do it".

2.335 Social Influences on the Development of Cognition

Social interaction plays a critical role in the development of higher mental functions and was emphasised by Vygotsky (1978) (and by Piaget (1965) to a lesser extent). The "theory of mind" researchers such as Perner (1993) indicate that in the quest for knowledge about the mind of a child, social interaction is required.

Social knowledge is the organised forms of thought about social phenomena (Serifica, 1982). A relationship exists between cognitive development and social development which is reciprocal, that is, certain developments in

cognition are important for the development of social knowledge. Cognitive abilities used for inferring or predicting about self and other may be organised in a similar manner to those needed for interpreting the physical world. Hence, social cognition requires an understanding of relations between and within persons.

2.4 Summary

Three theories are discussed because each contributes something different to the framework.

Information processing provides an explanation for how information is processed in the brain and discusses the processes involved in acquiring information, selecting useful information applicable to new situations, remembering information, and problem solving.

Situated Learning describes the relevance of context to learning. This theory links the person, the activity, knowing and the social world. In other words, children will acquire knowledge specific to a particular context through involvement in activities in that context.

Theory of mind provides a framework for what young children know about content specific to social competence, that is, communication; emotions; understanding mental states in social interaction; understanding of self and understanding others. The next two chapters review the literature on social competence and its subcategories.