A 'New' preschool curriculum that puts play on top: Déjà vu or second chance?

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ABSTRACT

This thesis examines explanatory theories of play and an empirical study of preschoolers' play. It aims to provide an understanding of the educational purpose, value and extent of play in children's lives. Understanding the interrelationship between play, development and learning, the writer hopes to be better equipped to facilitate and organize a meaningful play environment during the preschool years of young children to guide them into realising their potential of becoming confident and communicative beings; never mind the neat handwriting or colouring that preschool education focuses so much upon in Singapore. Considering explanations, the dominant theories of Piaget and Vygotsky's ideas in the play field are discussed. A framework towards an integrated perspective of a play- centred curriculum is presented. Considering evidence, studies of children's play development in the domains of cognitive, language, social and emotional development are reviewed and summarized.

Propelled earlier in the year 2003 by the Ministry of Education, Singapore, to accord play at the top of a new preschool curriculum, a battery of simple play experiments and tests were carried out to establish the interdependence of play, learning and development of preschoolers. Answers to two research questions regarding play in the local preschool context were processed: (1) Does thematic fantasy play training conducted during English Language Arts lessons increase preschoolers' incidences of fantasy play during free play periods? (2) Will thematic fantasy play training improve preschoolers' perspective- taking ability in the domains of cognition, perception and affection? The findings (N= 28) are presented. Their implications for Singapore preschool teacher training in a play- centred curriculum are discussed. The thesis concludes with a reconciliation of understanding amongst all the high- stakes players of

preschool education: parents of preschool children, preschool teachers and of course, the preschoolers themselves. The ultimate purpose of this thesis is to lay out and execute a local yet truly new preschool curriculum that puts Play at the top.

Chapter One: INTRODUCTION

INTRODUCTION

1.1 Overview- The Context

Embarrassingly, on January 20th, 2003, the Education Ministry in Singapore launched its **new** kindergarten curriculum. The PCF (People's Action Party Community Foundation), which is the main provider of preschool education here in Singapore, trumpeted its intention to adopt **new** methods to teach preschoolers through play, activity, discovery and experiment (see Appendix A). The embarrassment is: neither the methods of learning through play nor the PCF's plan is new!

I have been teaching preschoolers (2 to 6 year olds) for the past 14 years. Also, my experiences of mentoring preschool teachers started 8 years ago when I first taught a Diploma of Early Childhood Care and Education Programme. These "hands- on" experiences are not only personally enriching but also important because they accord with my holistic perspective, "bottom- up; top- down; outside- in and inside- out" (Katz, 2000), in the field of early childhood care and education.

I believe and know that early childhood care and education is built on a long established tradition that play has a key role in children's learning and development (Piaget, 1962; Vygotsky, 1976). The notion that young children learn best through play is as old as the very first kindergarten started by the German educator Friedrich Froebel in 1837 (Walsh, Chung & Tufekci, 2001, p. 96). As for PCF, in fact, as far back as 1991, amid much fanfare, it announced Project Preschool meaning PCF would reduce dependency on textbooks and design its curriculum to give play and communicative skills emphasis. However, since then, the pedagogy at the 312 PCF kindergartens here in Singapore has been unchanged. PCF's teachers still spend much of their time drilling preschoolers on basic reading, writing and numerate skills. The grand plans of a play-

centred curriculum stayed twelve years on the drawing board. For some parents with long memories, the PCF's announcement on January 20th, 2003, of placing play at the top of a **new** preschool curriculum was déjà vu. What, you may ask, has been contributing to this enormous gap between rhetoric and reality? Perhaps, it could be an insurgent wave of resistance from parents because, interestingly, parents secretly wished PCF would not deliver this **new** curriculum. Parents are nervous with a curriculum that puts play on top and find solace in workbooks and worksheets. Moreover, PCF's teachers, due to the constraints of teachers' training, time, space, teacher- child ratios and curriculum pressures to teach basic skills, undervalue their role in the preschoolers' play and focus their attention on more formal work- like activities.

Indulge me further as reflective practice motivates me to be a conscientious and authentic quality early childhood educator and therefore, whether with a sense of déjà vu or embarrassment, I really sincerely welcome PCF's renewed commitment to a play-centered curriculum. However, this time, let us, the Ministry of Education, preschools' teachers and parents of preschool children, be serious about this issue of learning through play.

Therefore, the big picture for this thesis has been framed to help parents of preschool children see the beneficial interrelationship between quality play and learning in the early years and preschool teachers to understand how they can facilitate quality play in a local context. However, an even bigger picture for this thesis is my hope for educating young children through play via their multiple perspectives- taking ability to respect diversity in this postmodern world which they are living and heading.

As a practitioner and action researcher, and based on my reading of the subject on play, I begin this thesis with an integrated perspective on play. I hold an educational

value that regards play as an essential vehicle for early learning; children should be given opportunities to learn through quality play and play to learn. The question may be asked "But why through play? Surely children go to school to learn 'other things'?" The answer is that, I believe that play in the early years has its own set of demands and learning possibilities. Under appropriate teachers' facilitation, children learn to cooperate with others and learn what others can do. They develop skills; they interact with other children who have been brought up differently and so learn to be aware of, appreciate and respect each other, diversity and their customs and perspectives. Preschoolers learn the routines and freshness of schooling and come to understand the rules of this new community. All these help children develop the planning and organisational skills which underpin so much of their future learning.

Having made clear my position, I will then review the literature on play in the domains of children's cognition, language and socio- emotional development, after which, I will write about my study of a specific type of play called thematic fantasy play. Through a quasi- experiment, thematic fantasy play effects are examined with the purpose to balance Singaporean preschool parents' anxieties of a play- centered curriculum and enhance preschool teachers' confidence in using play as a teaching and learning medium for preschoolers. This part of the thesis is new because preschool education in Singapore has been very structured and focuses very much on academic skills and understanding in areas like reading, writing and arithmetic. When the Ministry announced the desire to 'Put Play at the Top of the Preschool Curriculum', parents of preschool children and preschool teachers felt uneasy and at the same time confused. Instead of revamping the entire preschool curriculum, I am proposing a radical pedagogical change in the teaching of English Language Arts by incorporating thematic

fantasy play. I have chosen specifically thematic fantasy play because amongst the different play experiences for Singapore preschoolers, thematic fantasy play is very much directed and structured. These two characteristics are close to the hearts of parents and teachers here. After almost three decades of traditional structured teaching and learning, I believe the reins should not be just let free. Teachers and parents would be at a loss to teach through play and see their children spending much time playing at school. The hypotheses for this thesis are set out as follow: (1) Thematic fantasy play training sessions are able to increase the incidences of fantasy play in preschoolers' free play sessions. The implication here is if preschoolers were able to transfer their thematic fantasy play strategies into their free play sessions, these children are beginning to inject purpose and value into their own play. (2) Preschoolers' perspective- taking ability can be facilitated through thematic fantasy play. The implication here is if preschoolers' perspective- taking ability could be enhanced through thematic play, parents and teachers would be more willing to accept play as a learning tool. (3) The effects of thematic fantasy play on preschoolers' perspective- taking ability can generalise across the perceptive, cognitive and socio- emotional domains. The implication here is if the effects of thematic fantasy play could generalise across the domains of perception, cognition and socio- emotional, parents and teachers would be killing at least three birds with just one stone. Based on the findings, I will discuss what then should the local preschool teachers' roles and responsibilities be in a play- centred curriculum to successfully motivate early learners and enrich preschoolers' early learning experiences.

As I am writing now, there is a sense of urgency to complete this study and report the findings and recommendations to the Preschool Programme Coordinator. Preschools were ordered to close because of the SARS (Severe Acute Respiratory Syndrome)

outbreak in Singapore beginning March, 2003. They reopened just in a week ago (April 21st, 2003) after putting in place a network of safety precautions (see Appendix B). There was a parent who after observing her son in the kindergarten class, asked the principal, "These kids are just playing- when are they going to start learning something? We have missed so much school already! If my child comes to school to just play, then I think I'd prefer to keep him at home!" Many parents, not just this particular one, view their children's activities in the preschool as nothing more than mindless play. They feel there is no learning value in this type of play. However, decades of education research actually have documented that play has a crucial role in the optimal growth, learning and development of children from infancy through adolescence. Yet, the need to learn through play is still being challenged and so children's right to play must be defended by early childhood educators and its value made known to parents of preschool children. I feel the time has come to advocate strongly in support of play for all preschoolers. Of course, as mentioned before, revamping the entire preschool curriculum to put play at the centre- stage may be too harsh for Singapore preschool parents and teachers. Through this anecdotal observation, I wish to testify and justify a little yet radical pedagogical change of incorporating thematic fantasy play in teaching English Language Arts. Still, it is first necessary to gain a better insight of what play is. The following sections in this chapter attempt to unravel the mystery of play in general.

1.2 Unraveling the Mystery of Play

One knows that children's play can be both fun and exciting. The smiles on children's faces and their laughter that accompanies play attest to its enjoyable nature. Less obvious, however, is whether play is educational as well as pleasurable. There are sharp differences of opinion on this issue. Some adults, especially parents, consider play

trivial, frivolous and non- essential, while others, especially early childhood educators believe that play makes important contributions to all aspects of child development but frequently such belief gives way to parental demands. When asked, parents of preschool children usually would prefer their children to spend time in more serious activities, such as receiving academic instruction or playing organized sports. Parents oppose using school time for play activities because they feel that children already spend more than enough time playing outside of school.

To resolve the above- mentioned conflict, it is necessary to digress a little and first address the meaning of early childhood education. It is true that more Singaporean parents are sending their children to preschools as young as eighteen months because both parents have to work and there is no alternative care through an extended family setting.

But at eighteen months, what exactly is it that these parents desire their children to learn at such young age? Most parents think the earlier they send their children to school, the more intelligent their children will be. Early childhood education in their mind is primarily a time for young children to learn a set of prescribed skills and body of knowledge. However, there is a handful of parents who thinks otherwise, that early childhood education should be a time for young children to learn to be confident, self-reliant, expressive and imaginative. My question is, which set of parents is correct? Are their goals for their children mutually exclusive or should a quality early childhood education be a balance of the two, i.e. young children being given enough guidance to attain necessary skills and concepts yet enough freedom to make meaningful choices? Pollard (1996) claims that the key curriculum issue is the contrast between an understanding of education as the inculcation of established knowledge versus its

definition as a process of helping learners construct their own insights and understandings. At these turbulent times in a postmodern world, I feel the only defence one has is to wield the sword of lifelong learning. Prescribed skills such as neat handwriting or colouring within the lines, which are PCF's typical products achieved through drilling may not be applicable skills for the growing child.

This is indeed a difficult dilemma but a critically important one because the contrast highlights the distinction between the two different emphases that inform curriculum planning. The first is primarily concerned with children learning what we know, or at least the skills and competencies which, again in adults' opinion, will enable them to be employed and "do well" in a competitive world. This is like 'working backwards'. The second is less adamant but more trusting. It is based on our understanding about children's development. This second type provides the resources and opportunities to match children's developing competencies, thus helping children learn. But it does not, to the same extent, specify the content or the outcome and that is why I have used the word 'trusting'. This second type of curriculum planning believes that very young children know intuitively what they need to do and so children base their learning on their own motivation and interests. Teachers observe children carefully and on the basis of observing and assessing what the children are doing, through their knowledge of the learning plan and understanding of developmental norms, teachers support and extend children's learning in the most helpful and appropriate ways.

Children spend many years in school and so educators imperatively should have a clear picture of what these years are for. New ways must be better ways. As mentioned before, children in Singapore are starting school at as young an age as eighteen months old. These early years should provide a wonderful opportunity for children to be happy

and fulfilled. Everything should be done to remove the word 'boring' from children's evaluation of their time in preschool. In the light of the content of the curriculum and the optimal mode of delivering it, it is timely to reconsider and re- evaluate the contribution that play, in its many forms, can make to the development and learning of young children. This would allow teachers to justify its inclusion as an important part of the preschool curriculum and, when appropriate, to have the courage to give children time and space to play, secure in the knowledge that children are engaged in meaningful learning. The ability to articulate this justification would allow anyone who supports the inclusion of play to spell out what it is that children are learning and possibly persuade parents who want their young children to do "other more academic stuff" that play is real learning, particularly suited to young children's early experiences and stage of development.

To summarize here, if early childhood education is about enabling young children to confront new and stimulating challenges, be confident that they can try appropriate and innovative ways of meeting them, then a different kind of learning experience needs to be encountered. A different set of criteria built on imagination, perception and the ability to sustain involvement until a solution is found (perseverance), needs to be conceptualized. Parents must not allow the technocratic aspects of education push out the imaginative ones where children can retain some decision- making powers and be the prime movers of their own lifelong learning and education. If this does not happen, perhaps as Wordsworth (1807) feared, "Shades of the prison house will begin to close upon the growing boy". Aware of this fear, this thesis tries to justify a play- centred curriculum.

In one's search for a definition of play, one would be awed by the many denotations of play in the dictionary. The connotations of the term play are often vague and slippery and even personal and idiosyncratic. Like love, play is a many- splendoured

thing! Philosopher Ludwig Wittgenstein had suggested that one abandons hope of choosing the right words for a single precise definition of a broad, multifarious construct such as play (cited in Johnson, Christie & Yawkey, 1999). Rather, he suggested that one should think of such definitions as a rope comprising many intertwining strands and fibres. There is no one specific meaning but instead many interwoven threads giving shades of meaning to the concept and a sense of definitional clarity and strength in the unity of the whole. This whole is not reducible to the mere sum of its parts. Therefore, in conceptualizing the phenomenon of play, scholars have sought to bring to light elements of both convergence (overlapping characteristics of play) and divergence (distinguishing characteristics). A holistic play model means that one thinks about play from many different angles, each one comprising many different possible ingredients such as flexibility, spontaneity, non- literality, freedom, process orientation and the like (Johnson, Christie & Yawkey, 1999).

The following two charts briefly summarize theories of play: Chart (1) *Classical play theories*, which originated in the 19th and early 20th centuries and Chart (2) *Modern play theories*, which were developed after 1920.

Chart (1) Classical Play Theories

Theorist	Purpose of Play
Schiller	Expend surplus energy
Spencer	Expend superfluous energy
Lazarus	Restore energy used in work
Groos	Practise future survival skills
Hall	Revisit primeval activities to assist in development

Chart (2) Modern Play Theories

Theorist	Purpose of Play
Freud	Master unpleasant experiences
Erikson	Master physical and special skills to build self esteem
Piaget	Practise and consolidate known information and skills
Vygotsky	Create own scaffolds to stretch understandings in areas like self- control, language use, memory and cooperation with others
Bruner	Experiment new and unusual combinations of behaviours without worrying about accomplishing goals
Sutton- Smith	Prepare for adult life
Singer	Optimize the flow of internal and external stimulation

Classical theories give an historical perspective to contemporary adult attitudes about play. While the surplus energy theory holds that play is purposeless, nonproductive behaviour, the practice theory argues that play is vital for the survival of the species. As

for the modern theories, they have their roots in the early theories. For example, Stanley Hall's recapitulation theory (cited in Hughes, 1995) stimulated interest in systematically observing children's play and its proclamations about the stages of play heralded modern stage theories of play (e.g., Piaget's theory). Furthermore, Groos's practice theory held that many play behaviours have adaptive significance, an idea that is reflected in the theories of play and evolution proposed by Bruner (1972) and Sutton- Smith (1998). Modern theories of play have increased one's understanding of play, both through the explanatory power of the theories themselves and through the research the theories have stimulated. This contemporary research has led to the discovery that play is usually characterized by a small number of dispositional factors (Garvey, 1977; Rubin, Fein & Vandenberg, 1983), such as non- literality, intrinsic motivation, process orientation, free choice and positive affect:

- *Non- literality.* Play events are characterized by a play frame that separates the play from everyday experience. This essential characteristic applies across all play forms such as in sociodramatic play, solving a puzzle, building with blocks, or playing a game. Within this play frame, internal reality takes precedence over external reality. The usual meanings of objects are ignored and new meanings are substituted. Actions are performed differently from when they occur in non- play settings.
- *Intrinsic motivation.* Play is not externally motivated by drives such as hunger or by goals such as gaining power or wealth. Instead the motivation for play comes from within the individual and play activities are pursued for their own sake.
- *Process orientation.* When children play, their attention focuses on the activity itself, rather than on the goals of the activity. In other words, means are more

important than ends. This absence of pressure to achieve a goal frees children to try many different variations of the activity and is a major reason play tends to be more flexible than goal- directed behaviour.

- *Free choice.* King (1979) found that kindergarten children considered an activity such as block building to be play if it were freely chosen but considered the same activity such as block building to be work if it were assigned by the teacher. The free choice factor may become less important as children grow older: A subsequent study by King (1982) revealed that pleasure, rather than free choice, was the key factor differentiating play and work for fifth graders.
- *Positive affect.* Play is usually marked by signs of pleasure and enjoyment. Even when it is not, children still value the activity (Garvey, 1977). Some forms of play are accompanied by apprehension and even mild fear, such as when a child is preparing to go down a steep slide. However, even this fear seems to have a pleasurable quality because the child will go down the slide again and again (Rubin, Fein & Vandernberg, 1983).

Freedom from externally imposed rules and active engagement are often listed as characteristics of play (Rubin, Fein & Vandenberg, 1983) as well. However, these two characteristics are somewhat restrictive because they exclude two important forms of play: games with rules and daydreaming. Games by definition involve following pre-established rules but games are a form of play that becomes more important as children grow older. Daydreaming also becomes more prevalent as children approach adolescence. Singer (1973; Singer & Singer, 1990) contends that daydreaming slowly replaces dramatic play as a major form of fantasy activity. Adolescents mentally and internally play with ideas, rather than physically or externally playing with words and actions.

Early childhood educators are vitally interested in practical decisions of play regarding how to equip preschools or childcare centres, how to organize play activities, how to define appropriate use of play materials, how to structure adult participation and interaction with children and how much to gear curricula toward play activities. Perhaps, theoretical metaphors about play can be of use to teachers and parents of young children. The following section discusses four current metaphors for play influenced by modern theories of play and their implications (Johnson, Christie & Yawkey, 1999). Knowledge of these metaphors aids in tailoring the outline of the roles and responsibilities of preschool teachers in facilitating children's play.

1.3 Four Metaphors for Play and their Implications

1. *Play as transformation*. This metaphor, inspired by Piaget, emphasizes the symbolic characteristic of play in young children. In Smilansky's (1968) famous work on sociodramatic play among children assumed to be culturally disadvantaged, she considered the transformational aspects of play important for evaluating the level of play. The extent of cooperation, verbal behaviour and persistence in play were other critical factors she considered. To judge the quality of transformational behaviour, she raised four questions: (a.) Is the child pretending to be someone other than who the child really is? (b.) Is the child pretending that others are different from who they really are? (c.) Is the child pretending that objects are different from what they actually represent? (d.) Is the child pretending that the situation is different from what it really is? These types of transformations were assessed further in terms of their degree of difference from the concrete or familiar experience of the child. For example, is the child engaging in object transformation with the help of replica

miniature props, substitute objects, or pretend objects? Is the play theme and content close to, or far from, the child's normal everyday life?

One implication for teachers with this play as transformation metaphor is that teachers are able to discern the various types of transformational behaviours implicit within pretend play episodes. Teachers are also able to measure each child's progress in verbal, imagery and representational abilities, as shown through the child's use of realistic props, then less realistic props and finally no props at all during pretend play. As a result, teachers are able to make appropriate changes in what is available in activity or learning centers for children to use during play (such as removing or adding realistic props). Furthermore, teachers should respond sensitively to the apparent difficulty of enacting various roles and themes within make- believe play. For instance, children usually choose to enact themes close to their familiar everyday experiences before themes based on fictional roles and events.

2. *Play as metacommunication.* In this metaphor, children must use interpersonal (when playing together) or intrapersonal (when playing alone) messages to establish, maintain, interrupt, reinstate and terminate the play event. Ethnographic researchers, like Anthony Pelligrini, characterize play events in terms of either frames or scripts or contexts and texts. Play cannot be divorced from its surroundings and children quite easily enter and exit their play world, always cognizant of the real world. In other words, children at play operate on multiple levels. While engrossed in a play episode, children are simultaneously aware of the real identities of their playmates as well as who they themselves are within the play episode. Both the play itself and the negotiations around the play episode reflect and express the social relations that exist within the play episode, as well as outside of it. Duplicity is an inherent characteristic

of play behaviour. What takes place in the pretend world is the play proper, but play is always embedded in the actual world, revealing the dynamic relationship between the two worlds. Anything in the actual world can become play through the communicational message, "This is play". Children and adults are constantly framing and re- framing their behaviours and experiences across this threshold.

One implication for this metacommunication metaphor is that teachers are able to realize the social dimension of the play in context. Just as the transformational metaphor makes the teacher more aware of the vertical nature of play (developmental sequences and ability levels in symbolic representation), the metacommunication metaphor makes the teacher more aware of horizontal nature of play, considering the social context. With this, the teacher would be provided with a sensitive barometer of interpersonal relations in the classroom or preschool. This model becomes valuable in evaluating the peer status and the social development of each child and it can be used to explain some of children's behaviour during play.

3. *Play as performance*. In this metaphor, play actually involves a 'quadralogue'. If an ordinary conversation is a dialogue, then play involves four sets of communicators; players and co- players, directors, producers and audience. Even during solitary play, the child often imagines co- players and a pretend audience. Social play demands considerable coordinations, as individual children have their own ideas for how the play should be done or redone if the play does not go right the first time. This 'quadralogue' metaphor focuses on the fact that play is a staged event with multiple elements as players interact in a pretend world set up for a real or imagined audience.

One implication of this play as performance metaphor is that play is framed within content and context and therefore, teachers should respect the play boundary when

seeking to enter the play world as an adult or when facilitating a child to join an ongoing play group. Also, as children mature, they develop increasing skills in directing and managing their play. These behaviours may then provide an additional index of intellectual and linguistic ability in children.

4. *Play as script.* In this metaphor, play content represents the child's attempt to make sense out of personal experiences. As preschoolers develop intellectually, they become better able to structure events based on experience. The content of children's play is an expression of their interpretation of their own experiences. Scripts are knowledge structures activated from memory. A script represents the child's knowledge of a network of possible major sub- actions or scenes, which make up a larger activity such as going to the grocery store or taking a trip to the beach. Scripts identify culturally accepted ways of behaving in situations that are commonplace in the child's experience. Components of scripts include scenes, sub- actions, roles and relationships, props (environmental objects) within scenes, variations of the script (e.g., going to a big supermarket versus a small grocery store), and conditions in the social world that signal the beginning and the ending of the script. When examining children's dramatic or imaginative play as script, an observer can analyze the level of narrative organization displayed in the enactments, thus gaining an indication of the child's cognitive and language development. Wolf and Grollman (1982) suggest three different levels: scheme, event and episode. The scheme level is shown when children perform one or more brief actions associated with a single small event (e.g., putting a doll to bed). At the event level, children enact two or three schemes that are parts of pursuing one goal (e.g., bathing the doll and then putting it to bed). This level may also entail contoured events involving four or more different schemes all aimed at the

same end (e.g., pretending to create a meal by cooking hamburgers, making coffee, baking a cake and preparing salad). The episode level occurs when children perform two or more events directed toward a single goal (e.g., baking a cake and serving to a playmate). Episodes may also involve two or more contoured events (e.g., pretending to cook a variety of food, serving them to several playmates, and then washing the dishes). The play as script model permits the observers to witness, appreciate and roughly gauge both personality and self- concept disclosure and to estimate intellectual and linguistic maturity in young children.

One implication for this play as script metaphor is that it helps the teacher to recognize and analyze differences in intellectual and linguistic abilities as well as differences in self- concept and personality. By observing what the child is doing during play, the teacher can evaluate what the child knows, how the child is organizing experiences and is able to express them and what matters to the child. Teachers are able then to design lesson plans that will capitalize on special interests of selected children, such as arranging field trips and supplemental activities. The effects of these lessons can then be observed in subsequent play scripts.

1.4 How Does Play Relate to the Aims of Early Childhood Education in Singapore?

In *A Framework for a Kindergarten Curriculum in Singapore* (MOE, 2003), early childhood educators have pointed to a number of principles and desired outcomes for quality early childhood education in Singapore and they are:

Principle 1: Holistic development and learning. To recognize each child's individual learning preferences and abilities. Therefore, provision for each child's learning at every level must focus on knowledge, skills, dispositions and feelings. Six critical areas of learning experiences have been identified for this purpose; aesthetics and creative

expression, environmental awareness, language and literacy, motor skills development, numeracy and self and social awareness.

Principle 2: Integrated learning. To provide interdisciplinary activities to help children understand how knowledge and skills are really linked together rather than segregated in the teaching and learning process so that within a meaningful context, children discover things from observations, inquiry, exploration and first hand experiences.

Principle 3: Active learning. To facilitate children's learning by involving them actively in tasks that are meaningful to them. Therefore, teachers are to ensure a safe exploratory environment to allow for messiness and mistakes.

Principle 4: Supporting learning. To have realistic expectations of children based on their levels of development across all areas. Therefore, teachers are to provide experiences for children to support and extend knowledge, skills, understanding and confidence.

Principle 5: Learning through interactions. To take time to listen to and dialogue with children. Providing a nurturing and positive environment, teachers should respect and value what children say.

Principle 6: Learning through play. To use play as a medium for learning. While it is important to encourage spontaneous and imaginative play in children, teachers should provide opportunities for structured play involving a rich use of language. This is one fundamental principle underpinning thematic fantasy play which I will be discussing in Chapter two.)

To summarize, how does the encouragement of play relate to these six principles for early learning set out by the Ministry of Education in Singapore? In my opinion, it

can be argued that play is relevant to most if not all of them depending in part on the forms of play considered. For example:

(a) Much play is social. Sociodramatic play and rough and tumble play necessarily involve coordination of activities with one or more play partners. Such forms of play can form a primary mode of social interaction in this age range. Most forms of play occur naturally between like- aged children but play can also foster child- adult relationships if the adult engages in the play activity with the child.

(b) Many theorists claim that play has intellectual benefits. Sociodramatic play may foster language and role- taking skills, while constructive play may encourage cognitive development and concept formation.

(c) Play opportunities can be a useful point of contact between school staff and parents thereby providing relevance for a smooth transition between home and school.

(d) Because play is often defined as internally motivated and flexible, many theorists believe that play is the optimal way of enhancing creativity and imagination. Children have the freedom to try out new ideas in play and can express themselves in their own way especially in sociodramatic and thematic fantasy play.

(e) Much play is physically active. Constructive play may practise fine motor skills while gross physical play like rough and tumble play can provide whole- body exercise and motor coordination.

I hope by now that I have made a convincing case for play activities in furthering many or most of the likely aims of early childhood education. This establishment of a framework for a kindergarten curriculum by the Ministry of Education, Singapore, is a significant milestone for preschools in Singapore because it perceives that learning is both fun and enjoyable and that the child is recognized as a player on a journey of

lifelong learning. Young children can literally say "goodbye" to the oppressive days of independently and silently completing pages and pages of 'boring' worksheets. They should be welcoming opportunities to direct their own learning. To add success and more meaning to a play- centred curriculum, Bennett et al. (1997, p. 130) made these recommendations:

- integrate play into the curriculum through clearly specified aims and intentions.
- make time for high quality interactions to enhance learning through play.
- recognise opportunities for teaching through play, rather than relying on spontaneous learning.
- provide a structure for review time, so children become more consciously aware of what they are doing, learning and achieving in their play.

Summarizing Chapter one, it introduces play behaviours in children and the assessment of the level of maturity of such play behaviours. Also, readers should be able to see the importance and purpose of play and how it relates to the aims of quality preschool education in Singapore.

Chapter Two: REVIEW OF LITERATURE

REVIEW OF LITERATURE

2.1 Introduction

> Play that is well planned and pleasurable helps children to think, to increase their understanding and to improve their language competence. It allows children to be creative, to explore and investigate materials, to experiment and to draw and test their conclusions... Such experience is important in catching and sustaining children's interests and motivating their learning as individuals and in co- operation with others.
>
> (DES 1989, cited in DES 1990: 11)

Since the late 1960's, research on play has increased dramatically. During the 1970s alone, more than 200 scholarly journal articles and dozens of research books were published on the topic of play (Sutton- Smith, 1983). Most of the studies in these publications have fallen into four categories of research (Johnson, Christie & Yawkey, 1999): (1) *Definitive studies*, which attempt to distinguish play from non- play behaviours; (2) *Correlational studies*, which investigate the relationship of play to social, emotional and cognitive development; (3) *Individual- difference studies*, which examine how factors such as age, sex and cultural background affect play; and (4) *Ecological studies*, which investigate the effects of settings and materials on play behaviour.

More recently, Fein (1997) has described the voluminous research literature on children's play as occurring in waves. The earliest studies established that it is possible to scientifically investigate play and showed how children's play can be rendered empirically manageable. The second wave of research surged with training studies and the third wave tossed up correlational studies using global categories of play (e.g., constructive and dramatic play). As those waves ebbed, the fourth wave flowed forth with more intensive qualitative observational studies. These studies included case studies and ethnographies with detailed codes for play text and context, giving attention to the sequence of play behaviours between interactive play partners, as exhibited in adult-

child or child- child dyads or larger social groups. Further evidence of the field's accumulating knowledge base and increasing importance come from the growing number of college textbooks summarizing information on play, early development and early childhood education. However, although these efforts are by no means small, it is still unreasonable to suppose that parents would have been better informed about the importance of play. As with change in any educational practice, parents need basic information about the total programme and how play is likely to benefit and complement their children's learning and development.

Therefore, taking into consideration Singaporean parents' concern for more academic learning and preschool teachers' charge of play as learning and development in young children, I wish in this section to review in depth the importance of play in a few different forms (sociodramatic play, pretend play) through play research studies in children's cognition, language, social and emotional domains. These three domains are named specifically because they are linked to principles of early childhood curricula and child development (NAEYC, 1996). When synthesized, the reviews' combined information hopefully can be used to provide an integrative play approach to achieving educational and socialization goals during the early childhood years thereby reconciling teachers' beliefs and parents' differences.

2.2 Cognitive Domain

Research on play and cognitive development in the 1970s and 1980s was quantitative in nature and much influenced by Piagetian theory (linear and analytical). Variables and measures derived from Piagetian theory are discrete and product- like (e.g., object transformations), and they tend to emphasize child's play and other symbolic behaviours independent of the social context and hence led to criticisms by Margaret

Donaldson (1978). However, in the 1990s, there has been a trend toward qualitative research, inspired by Vygotsky's sociocultural theory (interactive and holistic). Qualitative inquiry involves fewer children and pays greater attention to context. Examples include conceptual analyses, case studies and anecdotal accounts. Constructs and assessments congruent with Vygotsky's theory are more social and highlight process variables. They assume a more reciprocal connection among play, cognition, and language which unfolds in an interpersonal and cultural context. There is evidence linking play with six important clusters of cognitive variables: conceptual development, intelligence, operational thinking, problem solving skills, divergent thinking and metacognition.

Conceptual development: Certain forms of adult- guided social- pretence play activities have been found to relate to the development of symbolic abilities. Sociodramatic play occurs when two or more children adopt roles and act out a story. This advanced form of pretend play requires a considerable level of representational competence. Children must be able to build scripts and conceptual networks, which enable them to impose order and establish predictable patterns across diverse arrays of experiences. For example, in order to act out a supermarket story, children must be able to reconstruct the correct order of events involved in grocery shopping: travel to the store, getting a cart if one is buying many things or a basket if one is buying few things, selecting food items and putting into the cart or basket, paying the cashier and taking the groceries home.

Smilansky (1968) has argued that sociodramatic play helps children integrate experiences that are separate and seem unrelated at first, such as selecting food and paying money to a cashier. Research supports her claim. Saltz, Dixon, and Johnson (1977) and Saltz and Johnson (1974) reported that sociodramatic play and thematic fantasy play

impoverished backgrounds connect discrete events. Compared to control- group youngsters, children trained to engage in sociodramatic play and thematic fantasy play had significantly higher scores on sequencing and comprehension tests that required both a reconstruction of the order of pictures representing a story line and an explanation of the relationship among the pictures.

Children's storehouse of knowledge and basic concepts increase geometrically during early childhood and play can greatly facilitate this process. Immature concepts of space, time probability and causality can be tested and revised during play. For example, the abstract concept of time comes to have meaning within the context of play when children have to wait for their turn to use a toy or to perform their part in a script. Expressions such as "in a few minutes", "a little while", "tomorrow", and even "next week" come to make more sense (Athey, 1988). Although time and space are often altered in make- believe play episodes, sequence and structure are often preserved and can become better understood. Children use their representational skills in play, transforming and transcending concrete reality.

Intelligence: General intelligence and cognitive growth are indicated by three mental skills: (1) the ability to discriminate information that is relevant from information that is irrelevant to a given purpose, (2) increased adeptness in using fewer cues to generate more information, and (3) higher levels of abstraction. These entail a number of different cognitive abilities, including memory, reasoning, abstraction and understanding of language. Play behaviour may contribute to these skills in several ways. According to Vygotsky (1976), the use of symbols in pretend play leads to the development of abstract thought. In addition, Piaget contends that play enables children to practice and consolidate newly acquired mental skills. Correlational studies have revealed a positive

relationship between IQ scores and two types of play; sociodramatic play and constructive play (Johnson, Ershler & Lawton, 1982). Investigators have also found that play training positively affects children's IQ scores. Children who initially exhibited low levels of sociodramatic play were taught how to engage in this type of play. Results showed that the training resulted in gains in both play and IQ scores (Saltz, Dixon & Johnson, 1977). Long term studies have demonstrated that the gains in IQ brought by play training are lasting (Christie, 1983; Smith, Dalgleish & Herzmark, 1981).

Operational thinking: Piaget discovered that most preschoolers are not capable of conservation. These children will be fooled by a change in a clump of clay's appearance and will be convinced that the amount of clay has been altered. Rubin, Fein and Vandenberg (1983) have argued that the role playing which occurs in make- believe play involves two cognitive operations needed for conservation; (1) decentration, the realisation that children can be themselves and enact a role simultaneously and (2) reversibility, the awareness that they can change from their make- believe role back to their real identity at any time. Research has indicated that making children aware of the reversibility inherent in make- believe transformations can help some children perform better on conservation tasks (Golomb & Cornelius, 1977).

Problem solving: Studies have found that play helps children's problem solving abilities (Simon & Smith, 1983; Sylva, Bruner & Genova, 1976). In these studies, children had to solve a problem that involved clamping sticks together to retrieve a marble or piece of chalk that was out of reach. Results showed that children who were allowed to play with the clamps and sticks did just as well at solving the problem as other children who were directly trained to solve it.

It appears that the play- problem- solving relationship is affected by both the nature of play and the problem being solved. Pepler and Ross (1981) made a distinction between convergent problems, which have only one correct solution, and divergent problems, which have a variety of solutions. They found that playing with puzzle pieces and foam boards led to better solving of convergent puzzle problems. Non- task related, divergent play (playing with puzzle pieces as if they were blocks) tended to interfere with the solution of puzzle tasks. Divergent play did however result in a wider variety of problem solving strategies and facilitated the solving of divergent problems, such as using blocks to build a make- believe village.

It is important to note that some investigations on play and problem solving have reported negative findings. Vandenberg (1990) tested the hypotheses that play promotes problem solving by providing the opportunity to observe features of the environment that are overlooked in more goal- oriented activities. He compared free play with two goal-oriented activities; (1) a narrow focused task that required children to construct a puzzle and (2) a broad focused task that required children to "save" a stuffed animal located in one corner of the room without crossing a line that went completely across the classroom floor. The correct solution required children to find one of several long, extended objects located in the room and use it to retrieve the animal. Results showed that the broad focused goal oriented group recalled and recognised more features of the environment than did subjects in the free play group. Vandenberg concluded that his findings, along with criticisms of experimenter bias in earlier lure- retrieval studies (Cheyne, 1982; Simon and Smith, 1985), raise serious questions about the merits of play for enhancing problem solving (1990).

Divergent thinking: Lieberman (1977) found that kindergartners who were rated high in terms of playfulness scored higher on tests of divergent thinking than did other children. Experimental studies by Dansky and Silverman (1973, 1975) have yielded evidence that there is a causal link between play and creativity. These studies revealed that children who were allowed to play with objects were later able to find more creative, non-standard uses for them. A series of play training studies have provided more evidence that play promotes creative thinking (Dansky, 1980). Dansky (1980) discovered that free play helped divergent thinking only in children who regularly engaged in make- believe. This finding supports Sutton- Smith's (1967) contention that the symbolic transformations that occur in make- believe play are a key factor in play's contribution to creativity.

Findings of more recent research on the play- creativity connection have been mixed. On the negative side, Smith and Whitney (1987) repeated the Dansky and Silverman (1975) experiment, with tight controls for experimenter bias, and they failed to replicate the connection between play and creative use of objects. Dunn and Herwig (1992) did not find sociodramatic play to be related to estimates of divergent thinking in middle class preschoolers attending mixed- age, all- day programmes. Dunn and Herwig suggested that ecology factors, such as attending a half- day versus an all- day early childhood programme may moderate play- creativity relations. All- day childcare may be less than optimal for peer contact and social play. These investigations urged others to build an ecological view of play and learning by conducting research across early childhood contexts.

On the positive side, Fisher (1992) examined the impact of play on development, performing a meta- analysis (i.e. use of statistical methods to estimate the probability of

relationships or differences among variables, synthesizing numerical information across studies on the same topic). He looked at 46 investigations done since 1974, dealing with cognitive, linguistic and social- affective domains. An overall effect size of r= 0.35 was determined using Cohen's scaling methods, where 0.20 is considered modest and 0.40 a noteworthy finding. Effects of play on divergent thinking, in particular ideational influence, was 0.39. As a characteristic of creative imagination, ideation fluency consists of the ability to produce flexible and original associations. Results focusing on sociodramatic play were most robust in Fisher's overall analysis, yielding a remarkable overall effect size of 0.60.

Metacognition: When children think through their own thinking and make reference to their own memory state, how well it is working, and what factors influence it (e.g., I can remember better when my mother tells me twice), their behaviours are referred to as metamemory. When children talk about their social interactions, including sociodramatic or other forms of play, their behaviours are referred to as metacommunication. Research has pointed to the importance of metacognition and particularly metacommunication in social- pretence play where planning and negotiation over roles are necessary for smoothly flowing episodes characterized by children going in and out of scripts within play frames.

The link between metacognition and play is important for the conversational coherence of social interaction. This importance was shown to be age related in a study by Goncu and Kessel (1984). They employed interpretive- hermeneutic methods in analyzing videotapes of play interactions of 24 middle class children. They scored children's social interactions for evidence of a variety of metacommunicative behaviours; planning, inviting, negotiating and acceptance statements, which were part of the play

frame or context, separate from the play script or text itself. These metacommunications proved indispensable for linking players' intentions and actions during the play, with older children having a significantly higher incidence of linked utterances than younger preschoolers had.

Theory of mind: During early childhood, a child develops a model of mental states called theory of mind (Leslie, 1987). This theory says there is an implicit and rudimentary awareness that even young children possess about their own and other people's internal psychological states. Before 4 years of age, most youngsters seem insensitive or oblivious to their privileged information (knowledge that they have but that another person lacks), thereby preventing them from realizing that another person who lacks this information might have a false belief. As children develop their theory of mind, they become more sensitive to the fact that other persons have their own minds and perspectives which often are at odds with the children's own points of view. Significantly, when engaged in pretense- play, children often seem precocious with respect to having a theory of mind (Lillard, 1998). Pretending is held to be instrumental in fostering a theory of mind.

Singer and Singer (1990) provide a useful modification of Leslie's original work on the theory of mind. Based on Leslie's work, Singer and Singer maintain that a major step in development occurs when children can "de- couple" or cordon off pretense representations from primary level mental representations, such as being able to pretend that a telephone cord on the floor is a "snake". When children or adults engage in this type of pretending, it does not create a distortion or disregard of reality that cause their representational systems to come crashing down. This is because they have developed their own systems of metarepresentations by which they can manipulate, modify,

transform, or otherwise flexibly characterize and use their primary representations of information from their perception of ostensive reality.

Recent research (Youngblade and Dunn, 1995; Dockett, 1994; Astington and Jenkins, 1995; Lillard, 1998) has examined pretend play and theory of mind development, the latter usually operationalized as passing the false belief task. In the false belief task, a child is shown "Maxi", a doll, who conceals candy in a blue cupboard. Maxi goes away and during his absence, his mommy arrives and moves the piece of candy from the blue cupboard to an adjacent white one. The mommy then leaves the scene and Maxi comes back. The cupboard doors are shut, so that the candy is not within the child's field of vision. The child is assumed to have been successfully led to believe that Maxi did not see his mother move the candy by the way the dolls were moved in and out of the scene by the researcher. The child is then asked, "Where will Maxi look for the candy?" The correct reply is the blue cupboard because that is where Maxi put it, and does not know that his mother moved it. Research showed that youngsters less than 4 years old tend to assert that Maxi will look in the white cupboard, egocentrically failing to suppress their own privileged information about what has transpired. Youngblade and Dunn (1995) report that those children who did more role- enactment play at age 33 months performed better on this task at 40 months of age than did other children, who exhibited significantly less pretending at 33 months of age. Similarly, Dockett (1994) found that children trained to engage in pretend play pass the theory of mind task earlier than do control group children. Astington and Jenkins (1995) found person transformations concept in pretend play significantly correlated with false belief understanding in 3- 5 year olds, controlling for language ability and verbal intelligence. This new body of research supports the

hypothesis that pretending is a causal agent in social cognitive development and in the theory of mind young children are developing (Lillard, 1998).

2.3 Language Domain

Observational research has revealed that young children frequently play with the different forms and rules of language (Weir, 1962). Young children play with sounds or phonology by repeating strings of nonsense syllables with syntax by systematically substituting words of the same grammatical category and with semantics by intentionally distorting meaning through nonsense and jokes. This language play helps children to perfect newly acquired language skills and increases their conscious awareness of linguistic rules (Cazden, 1976).

There is persuasive evidence that symbolic play and language are associated during toddler- hood (Bornstein, Vibbert, Tal & O' Donnell, 1992; Tamis- LeMonda & Bornstein, 1991, 1993). Toddlers were observed during 15 minutes free- play sessions alone and with their mothers at home, with toys such as a clown doll, cups and saucers, a toy telephone, a book, blocks and other materials available. Two indices of play are typically used in these studies: quantitative measures (frequency and duration) and qualitative measures (level of sophistication). Results showed that symbolic play is associated with language development, particularly syntactical complexity. Tamis-LeMonda and Bornstein (1993) reported that frequency of symbolic play at 13 and 21 months was related with semantic diversity at 21 months, but not with productive vocabulary or grammar (mean length of utterance). They hypothesize that play- language links reflect an underlying core component of representation in the child. These links do not appear to depend on material mediation, in that mothers' contributions in these studies were partialed out in the statistical analyses.

Older preschool and kindergarten- age children also gain valuable language practice by engaging in play (Garvey, 1974). Bruner (1983) contends that the most complicated grammatical and pragmatic forms of language appear first in play activity. In addition to being complex, the language that children use during play is decontextualised (Pelligrini & Jones, 1994). Decontextualised language is marked by its use of adjectives, pronouns, and conjunctions to carry meaning, relatively independently of nonverbal means and reliance on context. Explicit and intentional use of lexical and syntactical features of language enables children to signify person, object and situational transformations in pretense play and to identify and elaborate on play themes as they unfold during the play episode. Play can strengthen children's representational competence and can help children revise skills needed for comprehending and producing decontextualised texts in later academic reading and writing lessons.

The relationship between play and language, communication and emergent literacy persists as children continue to develop during the early childhood years. Correlational studies by Wolfgang (1974) and Pelligrini (1980) revealed a positive relationship between levels of sociodramatic play and reading and writing ability. Other researchers also reported that children's story comprehension was enhanced by sociodramatic activities (Pelligrini & Galda, 1982). Research on this topic has continued unabated to the present (Pelligrini & Galda, 1993; Roskos & Neuman, 1998).

Pelligrini, Galda, Dresden and Cox (1991) studied 12 preschool children attending a university- affiliated programme for 2 years. Children's symbolic play transformations and linguistic verb usage were assessed from free play observational notes and audio recordings. Children were given additional tasks to tap their receptive vocabularies (Peabody Picture Vocabulary Test) and other literate behaviours (e.g., children were

asked to tell, dictate, and write about two different series of pictures from the books *Daddy Makes the Best Spaghetti* and *Maybe a Bandaid Will Hel*). Symbolic play and linguistic verbs predicted emergent reading and writing.

Longitudinal studies by Sara Smilansky and her associates have linked sociodramatic play activities in kindergartners with their scholastic achievement in second grade. Total sociodramatic play correlated 0.40 with standardized reading scores and 0.45 with arithmetic scores. Make- believe play with objects, one of the criteria of sociodramatric play, correlated 0.41 with these test scores, the highest correlation found. Smilansky (1990) concluded that make- believe play with objects and situations during kindergarten accounted for 23% of the variance in reading achievement in second grade. The study did not control for the effects of intelligence, although Smilansky did point out that earlier work (Smilansky & Shefatya, 1979) showed that Stanford- Binet IQ in kindergartners only correlated 0.36 with the children's reading achievement at the end of the first grade.

Other longitudinal research has demonstrated that pretend play and cognitively challenging talk in preschool influence language and literacy skills in elementary school (Dickinson, 1994). Research suggests that object substitutions in pretend play may predict academic achievement in writing, but less so in reading.

2.4 Social Domain

There is a two- way relationship between play and social development. The social practices from parents, other children and teachers influence children's attitudes and skills needed for play. Conversely, play has a key role in social development by providing a context in which children can acquire many important social skills such as

turn taking, sharing and cooperation, as well as the ability to understand other people's thoughts, perceptions or emotions.

Social competence: A study by Garvey (1974) has provided detailed descriptions of the social abilities underlying group play. The most fundamental of these is the ability to understand the rules of play. All social play is rule governed. Even simple parent and infant games such as 'peekaboo' require the establishment of the rule that participants take turns. In sociodramatic play, the rules become much more complex. For example, once children adopt a role, their behaviour must be consistent within that role. If their behaviour becomes inappropriate, such as a baby acting like an adult, the other players will usually issue a sharp reprimand. Unlike formal games with rules, rules for role play are not set in advance; rather, the rules are established by the players during the course of the play. This conscious manipulation of rules provides an opportunity for children to examine the nature of rules and rule making. Therefore, play is a context in which children not only learn specific rules such as turn taking but also learn about the meaning of rules in general.

Children must also be able to construct and vary the theme of the play activity together (Garvey, 1974) in sociodramatic play. This joint planning ability is particularly important in sociodramatic play. To successfully engage in group dramatizations, children must first agree on who will adopt which role and on the make- believe identities of objects and actions. Several studies have reported significant correlations between levels of group dramatic play and measures of peer popularity and social skills (Connolly & Doyle, 1984; Rubin & Hayvern, 1981). These descriptive studies have provided evidence that sociodramatic play requires a number of abilities, such as turn alternation

and cooperation. These studies' findings also suggest that play may have a role in the acquisition or consolidation of social competence.

In a longitudinal study of older children by Pelligrini (1995), rough and tumble play such as running around, chasing each other, engaging in mock aggression on the playground has been found to correlate positively with social cognitive ability and popularity. Parallel constructive play has also been found to positively correlate significantly with peer popularity, teacher ratings of social competence and a measure of social problem solving (Rubin, 1982).

To investigate causal relationships between play and social competence, several researchers have conducted play training studies in which children were taught or encouraged by an adult to engage in sociodramatic play. Results showed that the training not only resulted in gains in group dramatic play but also led to increases in positive peer interaction and cooperation (Rosen, 1974; Smith, Dalgleish & Herzmark, 1981; Udwin, 1983). These findings both indicate that play training enhances social development and support the position that engaging in group dramatic play promotes the acquisition of social skills.

Perspective taking: Perspective taking is an ability to see things from other people's points of view. It involves understanding what other people see (visual or perceptual perspective- taking), think (cognitive perspective- taking) and feel (affective perspective-taking or empathy). These abilities have an important role in social and moral development and social competence. For example, children are better able to solve interpersonal problems if they accurately understand one another's thoughts and feelings. Altruistic behaviour such as generosity is motivated by an understanding of other people's distress and the joy they experience as a result of a generous act. In addition,

perspective- taking ability has been found to be positively related to children's level of moral reasoning (Selman, 1971).

Young children have difficulty with all forms of perspective- taking. This difficulty is generally attributed to the egocentric nature of their thought. For young children, the self and non- self are not differentiated which leads them to assume that their own points of view are the only points of view. As children mature, the self gradually decenters and becomes separated from the environment. This process of decentration makes it possible for children to realize that other people can have perceptions, thoughts and feelings that differ from their own.

Sociodramatic play may have an important role in the development of children's perspective- taking abilities and social competence. While engaging in group dramatizations, children act out a variety of roles. A child might, on different occasions, take on the role of a baby, parent, grandparent, firefighter and superhero. In order to portray such characters accurately, children must be able to mentally put themselves in other people's places and experience the world from other's points of views. This act of consciously transforming their own identities into a variety of make- believe identities may hasten the decentration process, thereby promoting perspective- taking and a number of other cognitive skills (Rubin, Fein & vandenberg, 1983).

Research has generally supported this proposed relationship between sociodramatic play and perspective- taking (Creasey, Jarvis & Berk, 1998). Levels of group dramatic play have been linked to children's perspective- taking abilities (Connolly & Doyle, 1984; Rubin & Maioni, 1975). Other studies have shown that sociodramatic play training resulted in gains in children's performance on visual, cognitive and affective perspective- taking tasks (Burns & Brainerd, 1979). However, as was the case

with research on social skills, methodological limitations including problems with assessment instruments and the confounding effects of adult and peer interaction have prevented these training studies from providing conclusive evidence that dramatic play causes growth in perspective- taking ability.

Recently, Sawyer (1997) has provided a fresh theoretical lens and accompanying research pertaining to the connection between play and social cognitive development during the early childhood years. Sawyer develops the metaphor of group pretense play as a jazz band that engages in a great deal of improvisations. Pretense play scripts are shared not only in a social context, but also the peer culture from which the children come. Such play scripts help the players forge mutual understanding in their play episodes. Play scripts and frames are just the tips of the iceberg, according to Sawyer (1997). Underneath the surface of overt social behaviours, there is a great deal of potential material for mutual play, due to the shared peer culture. The challenge is for the players to integrate individualistically inspired performances with the ongoing group performance. Here is an opportunity for children to learn to balance their budding individual creativity with improving social radar to be able to blend with the group play, as well as to be able to do "their own thing". For Sawyer (1997), skill at group pretense play in the early childhood years may foreshadow skill as a conversationalist later in life. His conceptual analyses and descriptive data add to the field's appreciation of the relation between play aspects and social and cognitive aspects of development in children.

2.5 Emotional Domain

From 1930 until the mid 1960s, psychoanalytic theory was the dominant theory of play. Most of the research and writing on play during this period dealt with psychoanalytic topics such as play therapy, use of play for diagnostic purposes and its

role in emotional development. The research was primarily non- experimental, consisting mainly of case studies of individuals. For example, Axline (1964), detailed how play therapy helped a young boy named Dibs solve his emotional problems. Such experimental research that was conducted suffered from methodological weaknesses such as inadequate controls and unreliable or invalid instrumentation (Rubin, Fein & Vandenberg, 1983). As a result, findings were inconsistent and often contradictory. A number of doll- play studies were conducted to investigate the displacement hypothesis which says that people tend to shift negative emotions onto a substitute. This hypothesis predicts that children who have been severely punished by their parents will be more aggressive in their play with dolls. While half of the doll- play studies supported the displacement hypothesis, half did not (Levin & Wardwell, 1971).

So, the disappointing results of past research, combined with the rising influence of cognitive theories of play beginning in the 1960s, resulted in a sharp drop in research on play and emotional development. Sutton- Smith (1983) reports that only five psychoanalytically oriented articles on play were published during the 1970s, as compared with 69 studies during the 1950s.

Although few direct experimental data back up the contention that play has an important role in emotional development, indirect data from other sources do provide such support. Garvey (1984) reported that play therapy studies improved and became more sophisticated, and Barnett and Storm (1981) showed physiological evidence linking play with anxiety reduction. Moreover, retrospective accounts and clinical case studies, such as the work in Texas by Brown (1994), suggest the importance of play in emotional development. Anecdotes by various child observers such as teachers, therapists and hospital child life workers add still more supporting documentation about the role of play

in emotional development. After culling examples from Rosalind Gould's (1972) excellent book containing a wealth of richly descriptive nursery school free play vignettes, Singer and Singer (1990) state the importance of play for children's selfhood and emotions:

> We believe that those children who have less opportunity, encouragement, and possibly in the case of autistic children, less constitutional predisposition towards regular make-believe play, miss an important phase of becoming fully human, developing complex self- schemes and learning how to express emotions.
>
> (Singer & Singer, 1990; p. 151)

Self concept: In the view that play is merely expressive behaviour that does not affect development directly in any positive or constructive manner, play is at least seen as serving general ego- building functions and is not reducible into component parts to be linked to other developmental phenomena. According to this view, play is construed as holistic and integrated within the individual personality and self- identity of the player. This position is reflected in the theoretical writings of Erikson (1940), Peller (1952), Sutton- Smith (1980) and Vandenberg (1998).

Erikson addressed the way in which the psychosexual conflicts of children are reflected in the spatial configuration of their play with toys. While controversial, his ideas deserve some consideration, in that they have reinforced the development and use of play as therapy to help children cope with emotional and behavioural difficulties. The belief that play can enable children to better cope with traumatic events led to a groundswell of sentiment for providing pediatric patients with play experiences to help alleviate anxieties associated with hospitalization (Lindquist, Lind & Harvey, 1977).

According to Erikson (1963), the adaptive resolution of each stage of psychosocial development involves the successful integration of social and biological

functions. Play creates "a model situation in which aspects of the past are relived, the present represented and renewed and the future anticipated" (Erikson, 1977, p. 44). And therefore play helps to solve ego conflicts, such as anxieties, by allowing these conflicts to be dramatized and played out. For example, playing with toys is a behaviour in which children explore and reduce concerns about their competence. Erikson has also noted the expressive value of play. He explains that the themes children enact during play are often associated with working through a traumatic experience, but they also expressed playful renewal (Erikson, 1972, p. 131).

Hence, Erikson moved beyond a narrow view of the part of play propelling anxiety reduction and compensatory wish fulfillment to a more positive holistic view of play in childhood. Erikson considered the sense of hope a "prime mover" in human development. Play and particularly future- oriented role play, reinforces children's intrinsic faith in the human race, as well as hopefulness about their own developing personal identities and integrating diverse perspectives.

Peller (1952) presented a more traditional psychoanalytic view about play, highlighting the diversity of essentially compensatory reasons a child plays. For Peller and other Freudians, play seems to be a substitute for reasoning and, as such, is a "crude kind of test action" (p. 124). Nevertheless, because play enables the child to re-experience past personal events with accompanying moods and emotions, playful repetition is seen as an essential step toward concept formation including the self-concept.

Sutton- Smith (1980), a scholar who has written extensively on play and relation to the self, has highlighted the way role reversal in play can foster a sense of control and autonomy in the child. Given that children operate from a position of weakness in

relation to adults, it is important for children to know that they have opportunities to turn the tables on adults and on aspects of living that make them feel inferior because of their immaturity and size. Play is a medium that is self- enabling. Play and fantasy give the child a chance to be powerful and the master of circumstances.

Consider how young children might feel, for example, about routine events forced on them by adults who may or may not think about the consequences of those events for children. Take the scenario of a child who is dropped off at a childcare centre day after day by a parent who hurries off to work. This child has no choice in the matter. The parent decides what happens and is virtually in total control of the entire situation. In play, however, the child can reverse the roles and pretend to leave dolls and teddy bears at a pretend childcare centre or nursery, thereby, recapturing a little of the loss of control experienced in the actual occurrences (separation anxiety).

Playing then is intimately related to the expansion of the sense of self as an autonomous and functioning person who can influence surrounding events. Through play, the identity of the child emerges. The child who forms a secure position of strength is able to achieve empathy for others. Playful reciprocity is first seen in adult- infant and adult- toddler interactions. Through this base and later adult- mediated peer role play, the child is able to engage in social play with peers. This process reflects and expresses the child's understanding of self and others and the relationship between the two.

In a provocative essay, Vandenberg (1998) has pointed out that, with development, children are more and more able to partake in intricate imaginative play alone and with others. Children also become more capable of making increasingly complex and nuanced distinctions between the real and the not real. He speculates that this task is more difficult for young children than is differentiating their play from non-

play experiences. Vandenberg's perspective on the significance of play with regards to one's self concept is best described as existential. In play, he says that children operate on the border between the real and the non- real, being and not being in the world. These children also learn to master a great personal power and freedom and learn about the fluidity and fragile nature of social constructions. For example, how simply saying "it's play" can change the whole experience and meaning of an event for self and others. Children at play can venture forth numerous actions without having to worry about consequences. Play reflects the past but also projects the future. Linked to children's play are children's hopes and their anticipations of becoming who they are. All these experiences lay the foundation of a self concept.

Vandenberg however cautions us about educational play with its implicit or explicit adult agenda because unfortunately, educational play can easily be reduced to an activity that is no longer playful. This will then rob children of the joy and freedom realized at the boundary of real and not real, where they are when they are really playing. Vandenberg argues that recreational and expressive play must be preserved for children, especially as they are introduced to formal institutional life (preschools, childcare centres) at younger and younger ages.

Stress and coping: Elkind (1981) has stated that play is an antidote to hurrying. Children play to release the stress they build up from all the pressure exerted on them by socialization agents in today's fast paced society. Children according to popular current views, are under pressure to grow up fast. Parents, schools and the media conspire to pressure children to perform tasks and meet demands earlier than did previous generations. Elkind defines hurrying as the pressure on children to make social accommodations at the expense of personal assimilations. In other words, children are

forced and hurried to learn new things, when the time would be better spent playing to reinforce or digest past experiences. Play and work are separate but complementary activities.

Elkind (1986, 1990) is highly critical of the dictum "play is child's work" because of the way it sometimes gets translated into teaching practice. He gives a poignant example of the inappropriate use of the spokesperson- for- reality intervention strategy: a teacher interrupted children playing with various toy dinosaurs to try to point out their different sizes. As a result, the children drifted off to other activities to avoid the teacher. Dinosaurs in play events have great symbolic significance. Although they are big and strong, as toys, they are small and easy for children to handle. Such play gives children a safe way of dealing with the giants in their world, adults. Elkind (1986, 1990) believes that adults should avoid interrupting this kind of play.

Similar examples of inappropriately turning play into teacher- oriented lesson plans are all too numerous and well known. Typically, in a classroom or childcare centre, teachers are eager to have children learn. It is easy to become overly enthusiastic. For example, a teacher interrupted a young child during a so- called free play period when the child, who played alone most of the time, was finally beginning to play with other children. The teacher wanted to help the child learn how to spell and write her name!

According to Elkind (1981), children's personal assimilations should not be turned into accommodations. Elkind (1990) argues that the real work of children is not play but to meet the countless socialization demands placed on them (remembering their phone numbers and addresses and how to get home from school, learning how to brush their teeth, learning to read, learning to deal with conscious and unconscious fears and concerns, and etc.). To complement this real work of childhood, children need

opportunities to play and use toys for full personal expression. Elkind (1990) emphasizes the value of the arts in the elementary schools for obtaining a balance between work and play. In preschools, the premium should certainly be on play and toys that give the greatest scope to the child's imagination, toys that allow for personal expression. This not only permits personal and autonomous activity and interpretation, but also is assumed to be appropriate cognitive enrichment that prepares the child for later school and life challenges.

2.6 Towards A Theoretical Framework of Thematic Fantasy Play

I have so far reviewed play in general and its play effects in the domains of cognition, language, social and emotional. In the Singapore context, such play experiences do not usually happen. Why? Well, first it is necessary to explain in detail what sociodramatic or pretend play really is. Second, in our local structured classroom we have only a shell or husk of sociodramatic play like the mere physical set- up of a sociodramatic play corner. What is missing is the content and teacher facilitation of such a corner. Third, I shall provide the rationale for gradually working towards a framework of thematic fantasy play in our local context.

A prototype of fantasy play studies was Smilansky's (1968) large scale sociodramatic play research with 1200 Israeli preschoolers. Smilansky (1968) made a pertinent contribution to fantasy play research by pioneering the play tutoring method which used sociodramatic play to enrich preschoolers' play and attempting to link its effects with social and cognitive gains. In general, the play training or play tutoring method consisted of introducing themes with which the children had previous experience, like going to the doctor, or a trip to the supermarket and encouraging the children to enact these experiences. Training was informal and consisted of intervention by the

experimenter to enrich and prolong the enactment. For example, the experimenter might ask questions like, 'How is your baby today?' in order to enrich a doctor play sequence. Toys were often provided to serve as props for the enactment. In the most effective of the conditions, as described by Smilansky, such enactments were preceded by field trips which would serve as the foundations for the enactment. For example, a field trip to the fire station which was enacted later.

What are the characteristics of such sociodramatic play? The play is realistic; it centers on the children's actual experiences. It involves role- taking and social interaction between children. And it involves both social and object representation. The social representation occurs when the children enact to each other in terms of the roles that they are playing, not in terms of their actual physical and social characteristics. The object representation occurs when the children pretend that one object is really another. For example, pretend that a doll is a real baby.

Smilansky and Shefatya (1990) have made convincing arguments to illustrate the relevance of sociodramatic play for school adjustment and success. They have pointed out that sociodramatic play is an activity which provides the child with maximum opportunities for problem solving, creativity, abstract thinking, vicarious learning, role enactment, theme development and social interaction skills. Most importantly, these skills and competencies are developed in situations that are inherently rewarding like pretend play. In view of the importance of sociodramatic play as a preparation for formal schooling, they surprisingly found that there is so little emphasis placed on promoting this type of play behaviour in young preschool children. The findings of Smilansky's and Shefatya's (1987) survey of sociodramatic play in the preschool curriculum and teachers' attitudes (Smilansky & Shefatya, 1990) have indicated that despite the existence of

equipment and facilities in preschool classrooms appropriate for sociodramatic play, teachers did not perceive such play to be an integral part of the curriculum. Nor did the 120 teachers surveyed in Israel and in the United States expect all children to engage in such play in preschool or perceive sociodramatic play as preparation for future performance in formal schooling. Significantly, the teachers did not feel the need to facilitate, intervene or evaluate sociodramatic play and assumed that children would learn to play on their own (Smilansky & Shefatya, 1990). This is exactly the same case in Singapore. As mentioned, the physical set up of the sociodramatic play corner exists in each Singapore preschool as a white elephant and I must add that it is a very small one too and also to comply to the licensing standards required by the Ministry of Community and Sports which govern all preschools in Singapore. Preschool teachers here use the corner as a "recess" time for their charges. They neither facilitate nor intervene at those sociodramatic play times. In other words, preschool teachers here do not perceive sociodramatic play as an integral part of the formal preschool curriculum. The more time teachers ascribe children to the sociodramatic corner, the more parents fear that their preschool children are just "fooling around" during precious curriculum time which is a hefty sum parents have to fork out each month as school fees. Parents think that their children already spend enough time playing at home. They do not wish to pay for their children to play at school!

Smilansky's (1968) research was based on detailed observations of children, aged three to six years, from middle and low socioeconomic groups in 36 day care or nursery schools contexts. Analysis of records was based on six categories of play behaviour. Smilansky's sociodramatic play inventory includes imitative role play, make- believe play in regard to objects (substitution), make- believe play in regard to actions and

situations, persistence, social interaction with at least one co- partner, verbal communication in the play framework. Findings in this pioneer study showed that style of play was essentially established by the age of three. Each socio economic status (SES) group performed within its characteristic cultural frame of reference by that age. If these characteristics were not present by that age, it appeared that no new elements were added. Smilansky's (1968) study suggested that certain groups of children have less facility for imaginative role play than others. Children of North African and Middle Eastern parents, classified as "disadvantaged", engaged in sociodramatic play much less frequently and with less ability than children of European parents (Smilansky & Shefatya, 1990).

After reading Smilanky's and Shefatya's studies (1968, 1990), I realised at least one similarity in preschool teachers' attitudes in Singapore is noticeable and that is the little value they place on integrating play into the formal preschool curriculum. To reiterate, the sociodramatic play corner which is actually an essential element in the National Child Care and Education Centres Licensing Standards (Ministry of Community Development & Sports) is mostly for show. The activities in such corners are often regarded as "recess" activities which children may choose to engage in neither with the teacher's interference nor facilitation after completing their worksheets. Therefore, these sociodramatic corners here are not truly learning centres for Singaporean preschoolers. When I asked some girls informally why they did not choose to play in the sociodramatic corners, they replied that the boys in there are 'too rough' for them and they liked only to mess things up. For example; placing the baby doll in the refrigerator, a behaviour which the girls find infuriating! When I followed by asking if the girls had ever brought their plight to the teacher, they replied that the teacher did not want to intervene and frequently required the girls to just play 'nicely' with the boys despite the boys' uncooperativeness.

This reinforces the view that true sociodramatic play activities do no happen in Singapore preschools. In the next section, I would like to write specifically about thematic fantasy play which appears more structured compared to sociodramatic play because thematic fantasy play is supervised and facilitated and how thematic fantasy play may be the answer to integrating play into the preschool curriculum. My interest in this area comes from my personal observations through the years of being a preschool teacher that thematic fantasy play has the potential to enhance children's perspective taking ability and be easily integrated into the formal preschool curriculum. Moreover, if teachers here were to continue their current way of conducting sociodramatic play, I believe that the Singapore government's edict of placing play at the top of the preschool curriculum would just be another unsuccessful déjà vu! I feel preschool teachers here do not need to reinvent the entire wheel of a play- centred curriculum. Just beginning with the language arts programme, I am proposing the integration of thematic fantasy play into the formal preschool curriculum which hopefully will be pleasing both to the preschool teachers and parents. In explaining thematic fantasy play, the pivotal link between play and learning has to be reiterated and brought to the foreground.

Following from Johnson, Christie and Yawkey (1999), there are three ways to consider the relation of play with child development and learning. First, the play behaviour of the growing child may serve as a window on the child's development and learning, revealing the current status of the child in various areas. That is play reflects development and learning. Second, play may serve as a context and medium for the expression and consolidation of developmental acquisitions, be they behavioural skills or conceptual attainments. That is play reinforces development and learning. Third, play may serve as an instrument of developmental change; play can generate qualitative

improvement in the organism's functioning and structural organization. In other words, play results in development and learning.

Within the framework of the Singapore preschool licensing standards overseen by the Ministry of Community Development and Sports, sociodramatic play corners are very important and essential learning centres in preschools. Therefore, in order to comply with its licensing standards, every preschool in Singapore must be equipped with one. However, unfortunately and sadly too, when a licensing officer from the Ministry comes by for annual evaluation and preschool licensing renewal, he or she looks only at the physical set- up of such a sociodramatic play corner without probing the play relationships in those play corners. Without teachers' facilitation, most times, such corners as mentioned before are used as "recess" time for the preschoolers. Parents in Singapore are more concerned about formal academic curriculum time basically because that is what they are paying for. With this in mind, I would like very much to search for some form of quality play activities that could be openly and rather easily integrated into the formal Singaporean preschool curriculum. In this section, I would like to explain my choice of thematic fantasy play training for enhancing preschoolers' perspective- taking ability. In this explanation, readers will be able to see the potential of thematic fantasy play for reflecting, reinforcing and resulting in learning and development for young children. I am speaking of potential for the time being. In the ensuing chapters, readers will be able to scrutinise the data collected and analysed to reach a better understanding of the true benefits of thematic fantasy play.

During the third year, for most children, a very important change occurs. The child engages in pretend activities while adopting the role of another person usually with whom the child is intimately familiar. Typically, it is the child's mother or primary

caregiver or another significant other. This role enactment of adopting the role of another differs from the earlier pretend activities with objects, in that now the child is able to infer and imagine the role identity behind the pretend actions. This new capacity lends greater coherence, enjoyment and meaning to the pretend activities of the child. The adoption of the role dictates and controls the child's actions during play time. Role enactment guides the pretend play. The pretending that results is more planned and persistent.

Role enactment or role play is significant because it indicates not only awareness of others but also the child's knowledge of role attributes, role relationships and role appropriate actions (Garvey, 1979). Role enactment behaviours are influenced by cognitive development and by personality factors as well as by the social environment such as the other persons (children as well as adults) who form part of the play or the events surrounding the play. Garvey and Berndt (1977) distinguish four types of roles: (1) functional roles or pseudo role enactment, which are organized by an object or activity. For example, pretending to cook dinner, triggered by the presence or use of a toy oven; (2) relational roles or family roles that suggest real complements such as mother and child, husband and wife; (3) character roles which are either stereotypic or fictional; and (4) peripheral roles which are discussed but not enacted.

Role enactments typically suggest the theme of the play episode. The development of symbolic play during the preschool years moves away from an exclusive preoccupation with highly familiar themes such as playing house or doctor and towards a greater interest in play themes that are more out of the ordinary (Johnson, Christie & Yawkey, 1999). Over time, children become more interested in enacting roles of characters from fiction, as opposed to familiar occupational roles. Kuczaj (1981) tells us

that imagining fantasy creatures and events in their lives can be easier for children than talking about nurses or doctors, because when they imagine, they do not have to "unpack what they already know". They actually could start afresh with something new! Therefore, potential themes for role enactments become more numerous as children begin to possess greater linguistic, cognitive and social cognitive abilities and social skills. Children also possess greater knowledge about the world that they live in, both the real world of everyday living and the events transmitted through media which they experience vicariously. These further increase the role playing of children.

The end point of symbolic play development is seen in the older preschool child who is now able to imagine with no object at all, who is now versatile in improvising with props and substitute objects of all types and who can now evoke imaginary situations through words. High levels of symbolic development are seen in the child's being able to take on a variety of diverse roles in collaboration with peers (Goncu, 1993) and engage innovatively with great enjoyment in fantasy themes, ranging from the most commonplace to the most extraordinary. Concentration, persistence, attention to detail and seeing the play episode as a whole are other manifestations of symbolic development.

Metacommunication, improvisation and multivocality (speaking in different voices) characterize complex social pretense (Howes & Matheson, 1992; Sawyer, 1997). Children at this level will repeat play sequences or start them over again to make them follow a plan. Children commonly talk about their imaginative play, decision making about props and space markers, role negotiations and the like. Children's interest grows in directing and co- directing a play sequence while playing and co- playing the roles in front of real and imagined audiences. These engagements in complex thematic fantasy play have been characterized by Sawyer (1997) as an improvisational jazz band, fitting in

and doing one's thing simultaneously, applying different voices in their play- actor's voice, political voice, director's voice and so on.

Finally, concerns with reality and peer pressure reduce overt pretend play, as children move toward an interest in games with rules, sports, arts and crafts and other activities appropriate for school age children. Piaget (1962) and Singer (1973), among others, speculate that overt pretend play goes underground and becomes internalized at this stage of development. There is speculation that a residual of the preschooler's earlier active fantasy social life persists in exerting a beneficial influence on the child's creativity, imagination, divergent thinking and operational thinking abilities. Decentration and the duality of pretend play and operational thought and social reciprocity all seem interconnected. Also, continuing outlets for pretend play exist in the form of video games and the like for the older child. The disappearance or going underground of overt pretense may be an artifact of the location of one's play observations in classrooms and on the school playgrounds. Overt pretence play may be missing or reduced drastically in such areas, but not at home or in the neighbourhood.

Experimenters have reported that training children to engage in various types of thematic fantasy play has facilitated a diverse set of cognitive abilities including vocabulary and general IQ changes, problem- solving, divergent thinking, perspective taking and impulse control. These studies, however, have been criticized by some as poorly controlled (Smith and Syddall, 1978). The critics have not necessarily challenged the findings of these studies; the criticism centers around the contention that alternative explanation for the results are possible. Two aspects of thematic fantasy play have been most often hypothesized as critical to cognitive development: representational activities and role- playing. Representations refer to activities in which children pretend that

something (a stick) is something else (a horse). Whereas in role- playing, children pretend that they are someone else (a mother or a character from a story like Goldilocks). These roles can be imagined or real. The function of role play is not to "act out" the part so that the audience can be convinced by the role, but rather to experience the role from "within": to pretend to be a character in order to behave, think, speak and feel as the character would behave, think, speak and feel. Role play enables the child to learn from within a context, through a primary learning experience.

Vygotsky (1967) is illustrative of the theorists who focused on representational activities in play as an important factor in cognitive development. He noted that young children tend to be very concrete and have difficulty using language to represent situations that are inconsistent with ongoing environmental stimuli. For example, a two year- old refused to imitate a sentence stating that it is snowing unless it is indeed snowing at the time. Vygotsky (1967) observed that in thematic fantasy play, children begin to use language in non- literal ways, such as pretending to ride a stick and calling the stick a horse. Here, play permitted breaking the concrete relationship between the word horse and a specific object in the world, the flesh and blood horse. Through thematic fantasy play, the children were seen as starting on the long road to the development of representational thought by permitting the stick to steal the horse's name.

It follows from theories like Vygotsky's (1967) that thematic fantasy play should foster ability to think in more representational modes. This general point of view led researchers later to hypothesize that training or tutoring children to engage in thematic fantasy play should facilitate the abilities of these children on a number of tasks, such as: (a) language development, since acquisition of both vocabulary and the rules of grammar appear to rely on inferential reasoning from the use of language in context; (b) cognitive

development, since many of the IQ subtests appear to measure problem- solving skills of representation and inference; (c) divergent thinking which appears to require ability to go beyond the concrete, immediate associations of objects; (d) impulse control which involves the use of internalized cues in order to break the hold exercised over behaviour by the immediate, concrete stimuli of the external world.

Role- playing is the second major variable that has concerned researchers in the area of thematic fantasy play. It is well documented that young children have difficulties understanding the points of view of others (Piaget, 1932). Theorists like Mead (1932) have suggested that thematic fantasy play may be a factor in the development of such understanding because in thematic fantasy play, children often take the roles of others and such changes in perspective could serve as a basis for their understanding the emotions, response and reactions of others. The Meadian viewpoint asserted that the development of the self is concurrent with the development of perspective taking ability.

According to Mead (1934, p. 158), the ability to take the perspective of others in his social context develops in two main stages: the 'play' stage and the 'game' stage. The 'play' stage involves perspective taking with specified other persons in specific social acts. The 'game' stage involves the child incorporating the perspectives of specific others into a generalized other. Both are important for the full development of the self. Mead maintained that fantasy play provides the context of experiences for the child to learn to take the perspective of others.

In a complex play situation such as fantasy play, the child's play involves him in recognizing and organizing perspectives and attitudes of others. The better a child is at playing a role in fantasy play, the better he becomes at recognizing and inferring the perspectives of others. With play as the platform of pretending to be another, the child

gains a sense of his own identity (Fein, 1984) as well as a better understanding of the reactions, attitudes and emotions of others.

Based on the rationale discussed above, experiments have been designed using thematic fantasy play as a means for generating both representational and role- taking activities. Results of many such experiments indicate that training or tutoring children to engage in thematic fantasy play leads to superior performance on various intellectual and perspective- taking tasks compared to children not so trained. In evaluating such experiments, the first issue becomes, did the experiments adequately control for alternative hypotheses concerning the superior performance of the children engaged in fantasy play? To answer this question, we must first decide on the most reasonable alternative hypotheses.

In play training studies, there is one ubiquitous 'alternative hypothesis', a variable that is capable of improving performance across a wide range of tasks which involve quite a diverse underlying abilities and that is the increased rapport between the experimenter and the children. Even if a training technique had no effect on vocabulary development, etc. it might appear to have an effect if the trained children felt comfortable enough with the experimenter to answer his/ her questions, while the control, non- trained children were shy in the presence of an unfamiliar experimenter. This factor is a potential problem in a number of experiments that we shall examine. However, for my own study which I will be discussing in Chapter three, I am the experimenter for both groups of children, control and experiment. Rapport has already been established. The participating children are all familiar with me! In other words, for my own study, I have attempted to eliminate this 'alternative hypothesis'.

For the most part, other alternative hypotheses are viable only for restricted types of outcome variables, or restricted types of training. For example, amount of verbal interaction, per se, between experimenter and children might facilitate certain language variables, like vocabulary and grammatical usage; however, it is unclear how this could influence other behaviours, like perspective- taking, unless the verbal interaction was somehow specifically concerned with perspective- taking issues. While verbal interaction has been proposed by several writers (Smith and Syddall, 1978; Rubin, 1980) as a catch-all explanation for all manner of behaviour changes, the rationale for such explanations has not always been spelled out. However, as shall be seen, the data from fantasy play training studies are too complex to support the contention that some single contaminating variable is producing all the different effects that have been found.

A second type of criteria for evaluating experiments is the reasonableness of the obtained results given our knowledge of developmental processes. This is a potentially dangerous criterion, since it could permit ignorance and bias to lead us to reject basically sound data. On the other hand, background knowledge can at the very least indicate that certain types of effects must be examined very carefully before we accept them. At this point, I am primarily concerned with those experiments which have reported sizable changes in relatively abstract, general abilities after only a few training sessions. It is difficult to believe that two or three training sessions in thematic fantasy play could improve representational ability so markedly that children would show general improvement in vocabulary, divergent thinking, conservation ability and so forth. Yet, how few sessions are too few? For the present study which I will be discussing in Chapter three, I carried out ten sessions of thematic fantasy play training with the experiment

group. The data I gathered were collected over merely a month's time to minimize this developmental effect.

Now, let us look at the thematic fantasy play training procedure. Thematic fantasy play was defined, following Saltz, Dixon and Johnson (1977), as children enacting themes and events not related to their everyday experience (e.g., enacting a fairy tale such as *The Sleeping Beauty*). Most extensively explored by Salz et. al. (1977), this type of fantasy play applies a three- step sequence: firstly, the teacher reads a fairy tale and discusses it with the children. Secondly, the teacher assigns roles and facilitates children's enactment with the story. Thirdly, the children exchange roles and enact the story several times. This procedure is spread over several sessions. Reenactments were required to follow the original story line, though the children were not expected to memorize dialogue. No props or costumes are used in thematic fantasy play. Compared to Smilansky's (1968) sociodramatic play, thematic fantasy play is more structured in that the children are assigned specific roles and enactment has to follow the plot of the fairy tale. On the other hand, sociodramatic play involves the children in realistic and familiar themes such as a mother and child at home scene or school scene. Play is unplotted in sociodramatic play and the children are encouraged to enact these episodes by planning their own story lines and making up their own roles. The majority of Singapore preschoolers do not have the developmental or language maturity to plan independently their own story lines and make up their own roles. Consequently, sociodramatic play does not work well in the local context. Props are also provided for the enactment in sociodramatic play which explains why the licensing standards require a sociodramatic corner in each preschool. But having the physical setup or hardware without the play relationships planning and facilitation or software, sociodramatic play in

the local context is a big white elephant. Thematic fantasy play on the other hand differs from sociodramatic play in two significant ways: first, it is less focused on the children's actual experiences than sociodramatic play. This highlights the cognitive demands of thematic fantasy play since it uses themes from fairy tales that are extremely remote from the children's personal experiences (Saltz, Dixon & Johnson, 1977; p. 368). Second, thematic fantasy play is more likely to have a strong plot, an internal, logical, dramatic structure to the course of events; sociodramatic play is usually unplotted, with little dramatic action and little necessary order to sequence the events. This highlights further cognitive demands on children since thematic fantasy play requires imagined behaviour which is greater than what is usually meant by the imitative behaviour so central in sociodramatic play. The more abstract the play, the more it will allow children to free themselves from the control of the concrete experiences in the environment (Vygotsky, 1967; cited in Rubin, Fein & Vandenberg, 1983) and therefore the greater enactment of symbolic skills. Thematic fantasy play is, in my view, ideal for use in the Singaporean preschool classrooms as it incorporates a more structured approach. Children and preschool teachers who are more familiar with a structured curriculum will find difficulty responding to Smilansky's less structured approach used in sociodramatic play. Furthermore, thematic fantasy play can be a natural extension activity from the traditional story telling procedure that is already a common practice for daily English Language Arts lessons in local classrooms. Preschool teachers would probably find thematic fantasy play easier to incorporate and implement within their own classroom than sociodramatic play happening in the sociodramatic corner which is to be shared with other classes. Although in some ways, sociodramatic play and thematic fantasy play are similar in that both involve role play, social interaction between children, and both social and object

representation, in light of the local context, thematic fantasy play seems more feasible for local preschool teachers to integrate into the formal curriculum. In this way, the local preschool teachers are not reinventing the entire wheel of a play- centred preschool curriculum.

Saltz et al. (1977) also suggested that the fantasy reenactment element of play was the most important variable in stimulating cognitive gains. Following Piaget (1962) and others (Rubin, 1980; Rubin, Fein & Vandenberg, 1983), fantasy reenactment is hypothesized to facilitate cognitive development because it helps children to assimilate newly encountered information. Rubin, Fein and Vandenberg further stated that the fantasy transformations characteristic of thematic fantasy play enabled children to engage in decentration activities (e.g., consciously transforming their real identities to fantasy identities). Such activities are thought to improve children's performance on a number of social- cognitive measures including perspective- taking ability.

Dodsworth (1978) studied the thematic fantasy play of three and four year olds from nursery schools in London and Sheffield, England. Observation of 64 children, aged 3 and 4 years from working and middle class backgrounds, indicated that working class children were found to engage in fewer episodes (26 from 20 working class children) of fantasy play than middle class children (43 from 26 middle class children). Although there was no difference in the duration of play in terms of mean length of episodes, there were fewer participants in working class children's fantasy play episodes than in fantasy play episodes of middle class children. Working class children used more replica objects in play whereas middle class children used objects in more unconventional ways such as using wooden blocks as cakes. In general, middle class children had a slightly higher probability of being observed in group play, but the difference was not significant.

Working class children on the other hand were more likely to experience an act of aggression or an interruption from another child whereas middle class children were more likely to verbalize.

Besides sociodramatic play and thematic fantasy play, there is another story discussion training procedure that was studied by a number of investigators (Smilansky, 1968; Saltz et al., 1977). For story discussion, as in thematic fantasy play, children hear fairy tales in a group situation. However, instead of taking on roles enacting the stories, the children only discuss them, are asked questions about events and about motivation of the characters. For example, 'Why did the wolf want to get to Little Red Ridinghood's grandmother's house before Little Red Ridinghood got there?' Here, we have verbalizations about play in a social situation, but without the physical role- play occurring. As in thematic fantasy play, the content is remote from the children's experiences. Also, the strong plot is present with its logical, dramatic structure and ordering of events. However, unlike sociodramatic and thematic fantasy play, while some role- taking may occur via identification with the main characters, it is not systematic or overt. In the absence of representational responses to the roles being played by other children, the burden of meaning is carried by language per se, a much more abstract form of representation. For my present study which I will detail in Chapter three, I will be pitting this story discussion procedure against thematic fantasy play training because the distinctive difference is that there is overt play in thematic fantasy play while story discussion technique has not.

Right now, it is also necessary to bring to the foreground the link between thematic fantasy play and children's perspective- taking ability because this is what I will be measuring in the present study. We know that young children tend to be egocentric in

that they often do not understand the points of view of other people when these points of view differ from their own. This is true for perceptual perspectives. For example, young children often appear surprised to find that their parents, in a different room, do not see what they see. It is also true for social perspectives. For example, when asked what gift their mother might like for her birthday, young children might answer tricycle or doll (gifts that they themselves like). The relationship between thematic fantasy play and perspective- taking was considered in two studies, those of Saltz and Johnson (1974) and Saltz et al. (1977). Both studies used Borke's (1973) task as a measure of perspective-taking and in both, thematic fantasy play training facilitated performance on Borke's (1973) measure.

Saltz et al. (1977) compared the performance of children trained in thematic fantasy play with that of children trained in sociodramatic play. I on the other hand for the present study, will be comparing the performance of children trained in thematic fantasy play with that of children trained in story discussion technique, because, as mentioned before, sociodramatic play is not feasible to be carried out in the local context while story discussion technique is something that has already been happening for some time in the local preschool classrooms. The authors found that thematic fantasy play led to significantly greater gains in perspective- taking than did sociodramatic play. There were no significant differences between the sociodramatic training and the control groups on Borke's (1973) measure.

In a study by Burns and Brainerd (1979), the authors found an effect on perspective- taking ability over 10 training sessions. One control condition involved encouraging small groups of children to cooperate over 10 sessions in constructing various specific objects using materials provided; children first agreed on the objects to

construct, then cooperated in the construction. The other control condition merely received pretests and posttests, but no intervention condition. On a battery of perspective-taking tasks, both the sociodramatic and construction control conditions far exceeded the no intervention condition. The sociodramatic condition was significantly superior to the construction condition but the magnitude of this difference was only moderate. Compared to the sociodramatic condition, the construction condition certainly controlled for rapport, and also apparently controlled for the amount of verbal interaction between the experimenter and children. Thus, at least part of the superiority of the construction condition over the no intervention control is probably due to the greater rapport developed over the 10 training sessions. In addition, the cooperative construction play involved interaction between the children; any such cooperative activity is likely to force a certain amount of appreciation of the point of view of others. In short, any cooperative play, sociodramatic or thematic fantasy or construction, is likely to foster some perspective- taking abilities. The Burns and Brainerd (1979) study was conducted in a relatively unstimulating daycare setting that was largely custodial in orientation. Therefore, against this background, perhaps almost any amount of encouragement of cooperative play activity might have a sizeable impact.

Smith and Syddall (1978) also reported a significant facilitation in perspective-taking as a result of training in sociodramatic play. Two perspective- taking tasks taken from Rosen (1974) were used. Several other studies have reported significant improvement in perspective- taking as a consequence of training in sociodramatic play (Fink, 1976; Rosen, 1974).

What then can be concluded about the effects of pretend play on cognitive functioning? We have seen that training in pretend play leads to improvement in a

number of different types of cognitive abilities. Could these results be due to the operation of some uncontrolled variable like amount of verbal stimulation rather than play per se? To answer this, it must first be noted that the pattern of results appears sufficiently complex that it is unlikely that any single variable is producing all of the effects. For example, thematic fantasy play and sociodramatic play training are equally effective in improving vocabulary score, leading to the conclusion that the critical variable relating play to vocabulary must be approximately equal in these two forms of play. Yet, thematic fantasy play appears to be much more effective than sociodramatic play for fostering perspective- taking. Apparently, the aspects of play critical to vocabulary development are not identical to those relevant to the acquisition of perspective- taking. Often we have seen changes in performance after so few training sessions that it is difficult to believe that basic abilities were altered by the training. So, we ask ourselves, how much training is necessary to produce some of the effects of concern? To what extent are reported results the product of priming, rather than changes in skill structure? Almost no follow- up has been reported to determine the stability of any of the observed effects. The time is past for pilot research on the effects of play. Effects have been found, but it is necessary to integrate something new (thematic fantasy play) into the old way (playing).

This section discusses some cognitive play effects such as measures of intelligence, vocabulary, ability to interpret cause- effect relationships, problem solving, divergent thinking and conservation. It is necessary to discuss these because the use of representational processes is an important factor in successful performance on many cognitive tests, the extent that training in thematic fantasy play facilitates development of representational and perspective- taking abilities should also lead to facilitated

performance on such tests. In this way, I am building a case for the perspective- taking ability measures for the present study.

The most extensive play training occurred in the study by Saltz et al. (1977) where play training lasted for 6 months, with three sessions per week. Three types of pretend play were examined: sociodramatic play, thematic fantasy play and story discussion. In addition, a cut and paste control group was exposed to the experimenters in an emotionally warm environment for an equivalent number of sessions. The children were primarily from lower SES backgrounds; all attended an excellent preschool which stressed verbal and intellectual stimulation. Thus, the various specific types of play training all occurred within the context of a generally stimulating environment. Further, the study was repeated three times, over three successive years to determine the replicability of the results.

In the first year of this experiment, children were post- tested on the Peabody Picture Vocabulary Test; in the next two years, French's Pictorial Test of Intelligence was used. In each of the three years of study, both sociodramatic and thematic fantasy play training led to significantly better performance on these tests of intellectual functioning than did story discussion or the control condition. The sociodramatic and thematic fantasy conditions did not differ significantly from each other. Results of an earlier pilot study by Saltz and Johnson (1974) also indicated a tendency for prolonged thematic fantasy play training to facilitate intellectual performance.

Is there an alternative hypothesis to account for the effects obtained by Saltz et al. (1977) and Saltz and Johnson (1974)? Earlier, I suggested that familiarity and rapport between experimenter and children being tested is an important factor that must be kept the same for experimental and control conditions. Children in the various conditions of

this experiment were exposed to the experimenters approximately equally, this makes unlikely the hypothesis that differences in rapport can account for the obtained differences in intelligence test scores. Another alternative hypothesis is one suggested by Smith and Syddall (1978). These writers suggest that training for pretend play typically involves a relatively large amount of verbal stimulation. If the control conditions do not involve corresponding amounts of verbal stimulation, an alternative hypothesis might be that any superiority in cognitive functioning for the pretend play conditions might be attributable to verbal stimulation, rather than other aspects of pretend play. Control for verbal stimulation was the rationale for including the story discussion condition in the Saltz et al. (1977) experiment. In this condition, the children encounter the same type of verbal stimulation as in the thematic fantasy play condition, but without the play activity. The children in the story discussion condition performed significantly below the children in the two play conditions; further, they performed no better than the children in the cut and paste control condition, which involved relatively little verbal stimulation from the experimenters. Finally, the total amount of verbal exchange between experimenters and children in any of the experimental conditions was a small fraction of the verbal exchange between the children and the staff of the preschool. Thus, verbal stimulation does not appear to be a viable alternative hypothesis for the effects of pretend play on intelligence test performance in the Saltz et al. study (1977).

Smith and Syddall (1978) attempted to test the notion that the effects of sociodramatic play training on intelligence test performance are attributable to the verbal stimulation involved in the training for sociodramatic play. One group of seven preschoolers was trained in sociodramatic play, another group of seven was trained in specific skills training, example: clay modeling. Training lasted five weeks, three

sessions per week. Both groups showed a significant increase in performance on two tests which are usually interpreted as indices of intelligence, the Caldwell Preschool Inventory and the Draw a Man Test. The increase in scores was not significantly different for the sociodramatic play as opposed to the skills training group. Further, amount of verbal interaction between experimenter and children was monitored during training, and was found to be similar for the two groups. Smith and Syddall (1978) interpreted their data as indicating that the observed increases in intelligence test performance for the two groups was due to verbal stimulation; the absence of a difference in intelligence test performance between the two groups was attributed to the fact that verbal stimulation was equated for the two groups. Sociodramatic play was interpreted as providing no unique variance to these test scores beyond the occurrence of verbal stimulation in the course of play. These are also some of the reasons I did not do a comparative study of sociodramatic play against thematic fantasy play, but chose thematic play against story discussion technique for their comparative amount of verbal stimulation.

Key investigators (Flavell et al, 1968; Selman and Byrne, 1974; Shantz, 1975; Chandler, 1977) formally define perspective- taking ability as the ability of the child to simultaneously be aware of multiple viewpoints and to infer relationships between them. Shantz (1975, p. 7) specifically refers to perspective- taking as "a group of cognitive processes which have been emphasized as a major means by which one person comes to know and understand another person". More commonly, perspective- taking ability is metaphorically referred to as "putting yourself in another's shoes" or "seeing the world through another's eyes". Mead (1934) theoretically suggested that children come to know and understand their social world through the cognitive process of perspective- taking. Given the ability to take the perspective of another, the child can then understand and

predict the other's responses in different situations. As such the importance of perspective- taking ability lies in its role as an essential forerunner in the child's development of moral reasoning (Selman, 1971), communicative and persuasive skills and other prosocial behaviour such as cooperation, empathy and altruism. The focus in the area of perspective- taking ability is on the child's conception of other people. The particular forms of fantasy play which are typically linked with perspective- taking are sociodramatic play and thematic fantasy play. Sociodramatic play was introduced by Smilansky (1968) and thematic fantasy play tutoring was developed by Saltz and Johnson (1974). Many researchers have hypothesized that such play experiences would better enable the child to infer another's perspectives, thereby enhancing his/ her social cognitive development. The hallmark of thematic fantasy play is that the child "pretends" and enacts the perceived roles of other people. In thematic fantasy play, the child is required to differentiate adequately between his/ her own immediate point of view and that of others and to integrate this awareness with his own perspective in order to play a convincing role (Fink, 1976) from 'within". Therefore, the better the child is at taking on different roles in thematic fantasy play, the better he/ she will be at perspective- taking.

To summarise, in this chapter I have explained the probable feasibility of thematic fantasy play training being integrated into the formal preschool curriculum in Singapore which is now supposedly play- centred. Instead of reinventing the entire preschool curriculum wheel, teachers need to try something new but manageable because it is structured like thematic fantasy play and have it integrated into the thing preschool teachers are already familiar and routinely carrying out story telling during the English Language Arts programme. Albeit in a tiny way, integration of thematic fantasy play training will be truly new. If a government- inspired play- centred curriculum meant

allowing more time for children to play by themselves in the sociodramatic corner then this concept of a play- centered curriculum will be deja vu and not to mention that this would again clash with parents' expectations of sending their preschoolers to school.

The purpose of carrying out the present study of thematic fantasy play is to show how this type of play affects children's perspective- taking ability; perceptually, cognitively and affectively and also if thematic fantasy play does enhance the occurrences of fantasy play during children's free play sessions.

Chapter Three: METHODOLOGY AND INSTRUMENTATION

METHODOLOGY AND INSTRUMENTATION

3.1 Significance of Present Study

This study is important for at least two reasons. First, acceding the call of the Ministry of Education, Singapore (See Appendix A) for a **new** preschool curriculum that puts Play at the top, the question is how preschool teachers can practically reconstruct their daily routine or traditional way of teaching in the development of early literacy by integrating thematic fantasy play into the formal curriculum. For example, rather than simply reading a fairy tale then discussing the story, a preschool teacher could be facilitating preschoolers to engage in lively role enactment sessions or thematic fantasy play. From the point of view of a play- centred curriculum, instead of reinventing the entire wheel of preschool curriculum, the study will explore whether thematic fantasy play can be effectively facilitated and integrated into the formal English Language Arts programme of the preschool curriculum. It is anticipated that this would allay preschool parents' misgivings about their children's playing during lesson time so that their children's play could be construed as learning indeed. Second, as many educators would probably agree, early childhood education for preschoolers is their first step across the portal of systematic and routine schooling. Since the most natural phenomenon for these preschoolers is their play behaviour, directed play behaviour would be a bridge linking the home and school environments. Again, from the point of view of a play- centred curriculum, the enjoyable and dynamic yet structured nature of thematic fantasy play could scaffold young children's love for coming to school and learning, thereby setting the stage for their journey of lifelong learning.

3.2 Theoretical Basis for Perspective- taking Ability

Whilst studying thematic fantasy play, the effects on children's development in their perspective- taking ability should become conspicuous. Although the focus of this study is on the facilitation of thematic fantasy play rather than the development of perspective- taking ability (PTA) per se, it is essential to follow the development of the perspective- taking ability construct in order to relate to the dependent measure employed in this study.

Conceptually and methodologically, perspective- taking ability is a global term that includes three main categories of perspective- taking in three different domains: (1) Perceptual perspective- taking (PPT) refers to the ability of the child to infer what the other is seeing; (2) Cognitive perspective- taking (CPT) refers to the ability of the child to infer what the other is thinking; and (3) Affective perspective- taking (APT) refers to the ability of the child to infer what the other is feeling (Shantz, 1975). Each of these incorporates the child's appreciation for the perspectives other than his own and his ability to infer what another's perspectives are.

In discussing perspective- taking ability, Mead (1934) elaborated on the role of the specific other and the role of the generalized other. The former occurs during specific interactions and the latter involves judgement about persons in general. Both are important to the child's social- cognitive growth and they do not occur independently (cited in Forbes, 1978). Thus, the child's gradual awareness of other's perspectives is a reflection of his development of thinking.

The concept of perspective- taking ability also has roots in Piaget's theory of cognitive development. Piaget's contribution was in terms of his concepts of 'egocentrism' and decentration. The former relates to the child's embeddedness in his

own perspective during the preoperational stage. The latter refers to the child's ability to consider multiple perspectives in a situation in the operational stage. The concept of egocentrism (Piaget, 1962), the child's embeddedness in his own viewpoints to the extent that he is unaware that others see things differently, has a central place in Piaget's theory. According to Piaget, egocentrism explains a variety of preschool children's behaviour such as his moral notions of equity and his difficulty in exchanging information. For Piaget, symbolic play is the purest form of egocentrism since he perceived play as the predominance of assimilation over accommodation (Light, 1979). Within his theoretical framework, Piaget recognised that symbolic play could contribute to representational thinking and that facilitated symbolic play could serve to overcome egocentric thought in young children (Piaget, 1962). In his account of preoperational thought, Piaget emphasized that the child's thinking is centered either on a single dimension of the object/ event concerned or on the self to the exclusion of others' perspectives. His data from the various conservation tasks and three- mountain task supported this view (Light, 1979). Piaget's major findings (Piaget & Inhelder, 1956) indicate that prior to the age of eight years, a child centers his own points of view in his social world and is unable to take the perspective of another. The classic Piagetian three- mountain task has become a watershed for the measurement of perspective- taking ability. Piaget and Inhelder (1956) directly addressed the issue of the development of perspective- taking ability by developing the first measure that was intended to assess the ability to imagine how an object would appear from the perspective of another person. In the three- mountain task, this model consisted of three mountains of different heights and irregular shapes with paths and streams marked on them. A doll of height 3 cm was placed in different locations around the model (the subject would form the fourth side of the table) and each

subject (N= 100) had to imagine the different perspectives of the doll from the positions. The child was shown a set of ten pictures from which he had to select the doll's view. Piaget and Inhelder (1956) concluded that the children could not coordinate the perspectives of the doll with their own perspectives.

Thus, Piaget saw the whole of early childhood development as a process of decentralisation. In other words, in the social domain, development in the child is for his thinking to become progressively flexible and reversible. This in turn would enable the child to realize that others have a different perspective.

3.3 Models of Perspective- taking Ability

Based on the above theoretical foundations, there have been various approaches to the study of the development of perspective- taking ability in young children. Most researchers have hypothesized that the perspective- taking ability of the child develops in stages (Feffer & Gourevitch, 1960, cited in Selman & Byrne, 1974; Flavell et al., 1968; Forbes, 1978; Selman, 1977; Selman & Bryne, 1974 and Urberg & Docherty, 1976). An awareness of the different models of developmental levels of PTA is of critical relevance to this study. The selection of PTA measures hinges on the criteria of appropriateness, both in terms of the task complexity and response mode in relation to the age of the subjects. This in turn relies on knowledge of the developmental levels of the perspective-taking ability of young children.

Feffer and Gourevitch (cited in Selman & Byrne, 1974), using projective stories, postulated that the development of perspective- taking ability is a series of three levels. At the first level, there is simple refocusing of stories with no coordination of perspectives. The intermediate level involves elaboration of stories with some

differentiation among perspectives, but still no coordination. The third level incorporates both differentiation and integration of perspectives.

As for Flavell, his analysis (1968) used a variety of perceptual measures involving social problem- solving and communication tasks and inferred also three levels of perspective- taking. At the first level, the self is aware that the other could think about things and himself. At the next level, the child becomes aware that his own thoughts about something can be the object of another's thinking. Recursive thinking occurs at the third level where the self recognizes that both the self and the other can become aware of each other's thinking.

Based on the principles of differentiation and integration of perspectives, Selman and Byrne (1974) used a series of stories involving moral dilemmas to construct their model of PTA development. At the first level, the child lacks awareness of the other's perspectives. Although the child is aware that the other has a different perspective at the second level, he is unable to relate the perspectives. At the third level, the child can infer the perspectives of the other. The fourth level requires the child to be aware that the different perspectives can reciprocally influence each other.

Urberg and Docherty's (1976) model of PTA development is similar to Selman and Byrne's (1974). Employing a battery of tasks and using a decentration continuum, they tested three developmental levels of PTA which range from total lack of decentration to simultaneous decentration of multiple perspectives.

The common characteristic that stands out from the above summary is that all the researchers saw the development of PTA as a continuum ranging from a total lack of awareness of another's perspective to an interaction of different perspectives. As mentioned earlier, an understanding of the developmental levels of PTA is important for

the selection of appropriate PTA measures in this study because play is viewed through child's development and learning.

3.4 Measurement of the Perspective- taking Ability Construct

Equivocal data have characterized investigations of children's perspective- taking ability. This is evident in studies that assessed the psychometric strength of measures used in perspective- taking (Rubin, 1973 & 1978; and Burns & Brainerd, 1979 versus Kurdek & Rodgon, 1975; Urberg & Docherty, 1976 and Ford, 1979). A major implication of equivocal findings pertains to the quality of the measures used. Kurdek and Rodgon (1975), Urberg and Docherty (1976) and Rubin (1978) have suggested that the tasks were not of equal difficulty, hence resulting in poor inter- correlations. In particular, Rubin (1978) was concerned with methodological inconsistencies such as response mode, task complexity and the level of perspective- taking.

In a study of the assessment of perspective- taking ability in young children, Soledad (1982) highlighted that the factors of stimulus complexity and response mode influenced performance on PTA. In particular, preschool children require familiar stimuli and simple response mode to understand the tasks. Difficult tasks characterized by novel stimuli, difficult response mode and complex instructions would result in an overload of information and thus under- estimate the perspective- taking ability of the subjects. This has been the main criticism of PTA tasks employed in studies which concluded that PTA is only fully mastered in adolescence.

One such study that came under sharp criticism was Piaget and Inhelder's research (1956). In that classic three- mountain task mentioned earlier, both the observers (child and doll) could see the same subjects. The test then was really "How does each observer see the objects" rather than "Which objects does each observer see?" The

former issue would be too difficult for a young child because of the lack of focus. The subject would commit errors simply because he did not understand the task. His errors would not be a result of his lack of perspective- taking ability. Furthermore, moving the doll to different positions would not be as effective as moving the object of the viewing. In short, it would be less confusing and distracting for the child if the object of the different viewpoints were rotated. Fishbein et al (1972) then created an innovative task employing the multiple object array using two identical arrays. His model will be used for the present study but modifying with more familiarity of objects for local children by substituting the three original Walt Disney characters used with three other more popular and familiar local cartoon characters.

The most widely used affective perspective- taking measure is Borke's task (1971). Borke (1971) designed a test that depicts children in situations (these are visual cues presented using simple line drawings) that might typically arouse the four emotional states of happy, sad, angry and scared. In her APT Task 1, each story (narrated by the researcher and is henceforth referred to as a verbal cue) is accompanied by a picture of a child with a blank face engaged in the described activity. The subject is asked to complete the picture by selecting the picture of a facial cue (happy, sad, angry or scared) that best shows how the story character feels. Borke's APT Task 2 used the incongruent item paradigm; the story character's facial expression is not congruent with the verbal cue provided by the examiner (e.g. a child smiling beside a doctor holding a very long needle about to be injected into the child's arm). The subject again has to identify the emotional state of the stimulus character. Borke's study (1971) found evidence of APT even in preschool children.

Chandler and Greenspan (1972) however, disagreed with Borke. They argued that Borke's test merely reflected the child's knowledge of cultural stereotypes; that a child need not be engaged in perspective- taking to accurately predict that a person for example given a birthday gift will be happy. Chandler and Greenspan (1972) used their own tasks and found no evidence of APT in five- year- olds, their subjects only succeeded on the tasks at age 13.

Other researchers, however, strongly conceded with Borke (1972) that knowledge of cultural stereotypes is a basic mechanism in the initial stages of affective perspective-taking (Urberg & Docherty, 1976; Selman & Byrne, 1974). These studies presented APT as a continuum ranging from shared cultural stereotypes at one end to sophisticated knowledge of the unique ways events affect individuals at the other end. The underlying argument is that content considerations of the tasks is important in determining the task complexity; when a subject has to infer an emotional response, he must not only have the concept of that emotion in his cognitive repertory but also recognize what situations would produce that emotion. Without such knowledge, the child would fail the APT task.

Chandler and Greenspan's tasks (1972) were apparently so difficult that virtually every child failed the test. This then is not a true measure of APT. Based on this reasoning, Borke's task is regarded as a test of a basic level of APT and therefore, more appropriate for use with very young children. This study will use Borke's tasks to measure APT because the subjects are all young children. Apart from task complexity, the response mode of the task has also been found to influence APT (Rubin, 1978). Borke's use of facial cues encourages the child to point to the happy, sad, angry or scared face. This in turn eliminates the risk of obtaining assessment scores that really reflect the child's linguistic incompetence than his ability to infer the feelings of others. This is a

particularly important consideration for testing in Singapore where many children may be more competent in their mother tongue than in English. Rubin (1978) also recommended that researchers should not interchange measures with different modalities of response. Rubin further stressed that verbal response mode in particular would underestimate the competencies of children (Rubin, 1978).

The debate of inconsistent construct validity data and the diversity of available perspective- taking ability measures have led to some researchers to postulate that "perspective- taking is a multi- dimensional social- cognitive skill whose dimensions themselves are multi- faceted" (Kurdek & Rodgon, (1975: p. 649; Shantz, 1975). Others have indicated that PTA is unidimensional at the preschool level while higher levels of PTA may not develop uniformly at the subsequent stages (Rubin, 1973).

Regardless of the different research findings cited in the foregoing discussion, researchers have, agreed and suggested that an accurate assessment of perspective- taking skills should incorporate (a) moderately reliable measures; (b) tasks that are at appropriate levels of complexity for the age range in question (in terms of task difficulty and response requirements); and (c) tasks that represent the three content areas of PTA i.e. use of multiple tasks or a battery of tasks to fully assess PTA. I have taken into consideration all these factors as detailed as possible in the present study. Therefore, measures of perspective- taking comprises three relatively reliable domains of perception, cognition and affection. Also, as for simple response mode, I have chosen for the young subjects the method of pointing to indicate their response.

3.5 Implications of Review for the Present Study

The studies reviewed in the above section shed light on the nature of testing for perspective- taking ability in young children. We have yet to see the relationship between

thematic fantasy play and perspective- taking. With regards to evidence that may determine the play condition as a casual factor of increased perspective- taking scores, a control procedure is necessary for the present study, first, both the control and experimental groups are monitored to ensure that adult verbal guidance for both groups are comparable. Second, a battery of tasks is used in the assessment of thematic fantasy play effects on PTA. Third, to eliminate internal inconsistencies, careful validation procedures are used during the instrumentation procedures to ensure that the tasks constructed or modified are age- appropriate in terms of response mode and task complexity.

In addition, observations of preschool children in general have indicated that children often independently extend their teachers' facilitation of play during curriculum time into their own free play periods. In line with the recommendations of Marshall and Hahn (1967), Feitelson (1972) and Freyberg (1973) who saw increased fantasy play episodes in free play periods after play tutoring sessions, my present study will also examine the trend of fantasy play in the experimental and control groups.

The theoretical perspectives and empirical evidence for thematic fantasy play and its effects on social- cognition have been presented in the preceding chapters. In light of the evidence presented and the resulting implications for the present study, the following experiment seeks to understand the link between effects of thematic fantasy play and the perspective- taking ability of preschool children. The experimental focus will vary along the single dimension of the content of the treatment, i.e. a group trained in thematic fantasy play versus a comparable group without thematic fantasy play treatment (control group). More specifically, this study seeks to provide answers to the following research questions.

3.6 Research Questions and Hypotheses

Three research questions and their corresponding hypotheses undertaken in this study are listed below:

1. Can preschool children's perspective- taking ability be facilitated through thematic fantasy play?
2. Will the effects of thematic fantasy play on preschool children's perspective- taking ability generalize across the different forms of perspective- taking ability: perceptual, cognitive, affective?
3. Can thematic fantasy play sessions conducted during formal curriculum time; English Language Arts Programme, enhance the incidence of fantasy play of preschool children during their free play periods?

The following hypotheses will be tested:

1. The group with treatment condition, thematic fantasy play, will show a significant increase in performance on total posttest perspective- taking measures than a comparable group with no thematic fantasy play treatment.

2a. The group with treatment condition, thematic fantasy play, will display a significant increase in performance on the perceptual perspective- taking measure than a comparable group with no thematic fantasy play treatment.

2b. The group with treatment condition, thematic fantasy play, will display a significant increase in performance on the cognitive perspective- taking measure than a comparable group with no thematic fantasy play treatment.

2c. The group with treatment condition, thematic fantasy play, will display a significant increase in performance on the affective perspective- taking measure than a comparable group with no thematic fantasy play treatment.

3. The group with treatment condition, thematic fantasy play, will exhibit a significant change in the number of subjects observed participating in fantasy play from the first set of five to the second set of five and over consecutively ten school- day (2 weeks) free play sessions observations than a comparable group with no thematic fantasy play treatment.

3.7 Definition of Key Terms

Thematic fantasy play (TFP): The experimental treatment thematic fantasy play, modeled on Saltz and Johnson's (1974) use of the term, is a particular form of fantasy play. Thematic fantasy play requires the teacher to first read fairy tales such as *Henny Penny* or *The Three Little Pigs* to the class. This is then followed by assignment of roles and reenactment of the fairy tales which the teacher actively guides the children to act out the plot of the stories. Reenactments must follow the original plot of the stories closely, although the children are not expected to memorize the dialogue. The reenactment requires a minimal use of props. Hence thematic fantasy play involves role play, social interaction, social and object representation. The present study used thematic fantasy play for the primary reason that it is more abstract (or less realistic) than other forms of fantasy play. The belief behind this thinking is that the more abstract the play, the more it will allow the children to "free themselves from the control of the concrete present stimuli in the environment" (Rubin, Fein & Vandenberg, 1983) and therefore, the greater enhancement of representative or symbolic skills.

Perspective- Taking Ability (PTA): In this study, this term is synonymously used with the term role taking. Perspective- taking ability refers to the child's ability to understand and infer another's thoughts, feelings and viewpoints. Conceptually and methodologically, PTA is used as a global term to include three main categories of perspective- taking:

perceptual perspective- taking (PPT), cognitive perspective- taking (CPT) and affective perspective- taking (APT). The differences in these categories lie essentially in the domains they pertain to: PPT for perceptual, visual or spatial, CPT for intellectual or cognitive and APT for emotional or affective perspective- taking. Each incorporates the child's appreciation for perspectives other than his own and his ability to infer what another's perspectives are.

Perceptual Perspective- Taking (PPT): This refers to the child's ability to infer what the other is seeing.

Cognitive Perspective- Taking (CPT): This refers to the child's ability to infer what the other is thinking.

Affective Perspective- Taking (APT): This refers to the child's ability to infer, describe or predict the affective states of another.

3.8 Pilot Study

A pilot study was conducted to assess the instruments and to refine the procedures that would be employed in the administration of the perspective- taking tasks. A detailed description of the construction, adaptation and modification of the measures used in this study is documented in subsequent paragraphs of this section.

In the pilot run, 30 preschoolers (mean age 5.1 years old) were sampled from two Sunday School kindergarten classes taught by the researcher at a local church to assess the reliability of the instruments. The reliability estimates of the perspective- taking tasks were assessed using the internal consistency method. The following Cronbach's alpha coefficients were obtained: 0.8 for perceptual perspective- taking task 1; 0.8 for perceptual perspective- taking task 2; 0.9 for cognitive perspective- taking task 1; and 0.6 for the affective perspective- taking task. The cognitive perspective- taking task 2

involved scoring of the task based on the subjects' verbal stories. A random sample of the subjects' stories were taped recorded and scored by another scorer who was not aware of the research hypotheses. Inter- rater agreement was 97%.

3. 9 Subjects

After the pilot study, the sample for the present study was 30 preschoolers taken from two intact kindergarten classes in the researcher's present work place. This preschool is selected because it is totally convenient for me and the Preschool's Programme Coordinator is keen to obtain findings of play research especially after the new directive from the Education Ministry of Singapore for a play- centred curriculum. Also, in view of the current SARS situation in Singapore, the Programme Coordinator is facing economic challenges from parents delaying their preschoolers' enrolment into the preschool or withdrawing preschoolers from existing classes. This preschool serves mainly children from middle- class families living near the school and has been serving the neighborhood for the past ten years. The sample comprised predominantly of Chinese children. The assignment of the treatment conditions to the two classes is not completely random. Since the researcher is the home teacher of one class, she may be predisposed to be favourably biased towards them because she has a closer relationship with the children of this class. Therefore, the home class was identified as the control group where the children do not receive the treatment condition of thematic fantasy play. As for the experiment group receiving the treatment of thematic fantasy play, the class of which the researcher is the English Language Arts teacher was chosen. At the time of study, one child had already withdrawn from the preschool and another child who has some learning difficulties of which the parent did not give consent for his participation in the study.

Therefore these two children were excluded in the study. The children were tested on the complete set of tasks and the rate of attendance during the treatment was 100%.

3.10 Methodology

The research design for this present study is based on a quasi- experimental pretest posttest control group design presented in Table 1.

Table 1 Experimental Design

	Pre- Test	Treatment	Post- Test
Experimental Group [E]	PTA Measures	TFP	PTA Measures
Control Group [C]	PTA Measures	no TFP	PTA Measures
Play observations	Observation of 20 mins per free play session of 10 sessions over two weeks during the treatment (TFP) period		

3.10.1 Experimental Group

The researcher has been trained in thematic fantasy play tutoring. To minimise the researcher's bias- ness, the class in which she is the English Language Arts teacher became the experimental group instead of the class in which she is the home teacher. In the experimental group, the children were exposed to an English Language Arts curriculum of thematic fantasy play (TFP) using role enactment of fairy tales such as Inside, Outside, Upside Down (Berenstain, 1980), The Bear and the Travellers (Aesop, 1997) and The Giving Tree (Silerstein, 1964). After telling the stories, the children were guided in the reenactment of the story following the plot of the story closely. The content of the fairy tales provided the fantasy component of TFP and the role play revolved around the plot of the fairy tales. The children were not expected to memorize the story lines though reenactment followed the original plot closely.

3.10.2 Control Group

As for the control group, the home class, the researcher conducted the routine curriculum procedures of the school, i.e., the children or subjects were read the same stories: Inside, Outside, Upside Down (Berenstain, 1980), The Bear and the Travellers (Aesop, 1997) and The Giving Tree (Silerstein, 1964) as the experimental group following which they were asked questions about the stories and encouraged to actively participate in the discussion with me. This is common practice for teachers in most preschools in Singapore. This form of practice is so common that it is the accepted norm of teaching style for any English Language Arts Programme.

It is important to note that the routine procedure incorporates active and verbal guidance on the part of the teacher. Hence, in the control group, answering questions provided verbalization in a social setting about the stories read without the actual physical occurrence of thematic role playing. Like the experimental group, the control group was actually involved in the fantasy component in terms of the content of the fairy tales which revolved around the strong plot of the stories. However, unlike the TFP of the experimental group, it did not involve the children reenacting the scene and role playing the story characters or events, i.e., the thematic fantasy play treatment. This thus ensured that both groups were comparably matched in adult- child guidance. The main difference between the groups was the thematic fantasy play component of the role playing of the experimental treatment.

3.10.3 Training Procedures

During the first week (see schedule outlined in Table 2), being the teacher for both classes and also the researcher, I pretested all subjects on PTA measures. Over the next two weeks of 10 daily twenty- five minutes of English Language Arts sessions,

thematic fantasy play training took place for the experimental group. Then, posttesting of all subjects on PTA measures was conducted during the fourth week. The thematic fantasy play training involved the use of fairy tales to facilitate role play with children without props or memorization of lines. Suggestions were made and used to direct the sequence of the plot in the experimental group. In the control group, routine activities as generally employed in the story- telling session continued. This refers to the usual reading of the story, followed by a verbal teacher- guided discussion of the story content and a question cum answer session.

Table 2 Schedule of Training Procedure

1st Week	Pretesting of all subjects on PTA measures
2nd & 3rd Week	10 twenty- five minutes thematic fantasy play sessions were conducted with the experimental group
4th Week	Posttesting of all subjects on PTA measures

3. 10.4 Scoring Procedures

The children from both groups were pretested and posttested on measures of perspective- taking ability (PTA). The subjects were tested individually in a familiar but private room (library). The testing session lasted approximately 15 minutes to avoid fatigue and loss of concentration.

All the tasks were selected and modified for their appropriate use with preschool children in Singapore. The main critical concern was that the tasks should be culturally unbiased and involve familiar materials, clear instructions and simple response requirements. I have demonstrated considerations and sensitivities through the pilot study carried out earlier with the children in the Sunday School classes taught. There were 5 tasks in all; 2 perceptual perspective- taking; PPT tasks, 2 cognitive perspective- taking;

CPT tasks and one affective perspective- taking; APT task. The tasks were presented in random order, with the order of the item presentation within each task also randomized. The possible range of total scores was 0- 20.

3.10.4.1 Perceptual Perspective- taking Measures

The instruments used in the present study (perceptual perspective- taking tasks 1 and 2; see Appendix C) were modifications of tasks used by Fishbein et al (1972) and Flavell et al (1968). The present study adopted Fishbein's perceptual perspective- taking task because of its appropriateness for use with preschool children. However, the original use of the three Walt Disney characters was modified with the use of a Singabear, Pooh Bear and one Pokemon character; Pika Chu. A small scale survey of 20 preschoolers in Singapore for their toy preference indicated that the characters of Singabear, Pika Chu and Pooh Bear were more popular and better known. The testing procedure required the child to sit across the experimenter. Then the child was shown 2 circular revolving trays on which were glued these 3 popular children's cartoon characters; Singabear, Pika Chu and Pooh Bear. It was shown to the subjects that both trays were identical and that the trays could be rotated. During the testing phase, the experimenter would turn her tray so that Singabear faced her. The subject was then instructed to "Turn your tray so that you will see Singabear, Pika Chu and Pooh Bear as I am seeing them now". Following the subject's responses, the experimenter would rotate her tray 90, 270 and 180 degrees in random directions from the initial position. This guarded against the subject's predicting the tray movement. Instructions were repeated using the other characters in the tray and one point was awarded for each correct answer. There were four instructions and therefore the possible score range was from 0- 4. No corrective feedback was provided.

The perceptual perspective- taking task 2 was directly adapted from Flavell et al (1968) and involved using a doll while the experimenter and the subject were seated across each other. The experimenter would familiarize the subject with the terms "right side up" and "upside down" using the doll to demonstrate the positions. During the testing phase, the child would be asked to (1) "Place the doll so that you can see it right side up". Following the response, the subject would be further required to place the doll in various positions; (2) right side up for the experimenter, (3) upside down for the subject and (4) upside down for the experimenter. There were four instructions and one point was awarded for each correct answer. The possible score range was 0- 4.

Both PPT1 and PPT2 tasks were used in this study because the range provided for a slight difference of degree in PPT testing. This served to ensure that the tasks were not too easy or too difficult for the subjects. The popular cartoon characters ensured that the task materials were familiar to the children. Instructions were clear and it was also simple and easy for the children to indicate their responses. Hence factors of stimulus complexity, clear instruction and response mode were considered in the selection and modification of tasks.

3.10.4.2 Cognitive Perspective- taking Measures

Cognitive perspective- taking is the broadest category of the three domains of perspective- taking ability and requires the subjects to infer something about the thoughts, motives and intentions of another person. Two of the most widely used CPT measures in the literature are Flavell et al's Gift Task (1968) and Kurdek and Rodgon's Boy- and-Angry- Dog story sequence (1975).

The cognitive perspective- taking task 1 (see Appendix D) was adapted from Flavell et al (1968). Twenty preschoolers were interviewed in a small scale survey to

obtain a list of gifts that they would buy for their father, mother, teacher and friend of the same sex. The data obtained was then used to reconstruct Flavell et al's task so that cultural bias of the items in the original task would not be a confounding factor. Coloured pictures of the five items were presented to each subject. The items included a girl's bedroom playing set, MicroPet, men's shirt, ladies' matching handbag and shoes and 'Best Teacher' fridge magnet. In the present study, each subject was then asked to select an appropriate birthday present for (1) father, (2) mother, (3) teacher and (4) friend of the same sex. There were four instructions and one point was awarded for each correct answer. The possible score range was from 0- 4. Again, instructions were simple and the pointing response did not require the subjects to give a verbal reply.

The second cognitive perspective- taking task (see Appendix E) was adapted from Kurdek and Rodgon (1975). A series of seven laminated line drawings depicting a frightened boy chased by an angry dog was laid in sequence before each subject. The child was asked to tell a story about the pictures using English language. The experimenter would subsequently remove the second, third and fifth pictures from the sequence, thereby creating a new story. The subject was asked to predict his best friend's story to the experimenter if these four pictures were shown to his best friend. A story about the boy in the picture chased by an angry dog would score 0, a story that only referred to the chase or the angry dog would score 1 point and a new story that did not refer to the chase or the angry dog even during the experimenter's questioning would score 2 points. The possible score range was 0- 2.

3.10.4.3 Affective Perspective- taking Measures

Affective perspective- taking refers to the ability of the child to infer the feelings of others. The most widely used APT measure is Borke's task (1971). Borke (1971)

designed a task that depicted children in situations that would typically arouse four emotional states of happy, sad, angry and scared. Many researchers (Urberg & Docherty, 1976 and Selman & Byrne, 1974) have found Borke's test to be a more appropriate test for use with young children and therefore Borke's test (see Appendix F) was adapted for use in the present study.

Apart from task complexity, Borke's use of facial cues which employed a pointing response eliminated the risk of obtaining assessment scores that really reflected the child's linguistic ability than his ability to infer the feelings of others. This was a particularly important consideration for testing in Singapore because the children are not native speakers of English. The section of Borke's test that used the incongruent item paradigm was discarded for reasons that it was too complicated for Singapore preschoolers. Two items were added to the first part of the original Borke's test to incorporate a slight degree of difference in the task range. In addition, the visual cues used in the original Borke's test had to be reconstructed by the experimenter to eliminate cultural bias. Three different sets of facial cues that depicted the four emotions were surveyed on 20 preschoolers and the results and final line drawings are presented in Appendices F (for Boys) and G (for Girls). The experimenter also interviewed 20 preschoolers to obtain information about common types of situations that could be constructed for the verbal cues (See Appendix H).

The affective perspective- taking task involved a series of six pictures (Appendix I- situational cues) depicting children in situations that would arouse happiness, sadness, anger and fear. Initially, the subject was shown four facial cues (Appendices F- for Boys, or G- for Girls) and asked to identify happy, sad, angry and scared face. Corrective feedback was provided and they were not allowed to proceed with the task until they

could identify the facial cues. This affect matching trial ensured that the subjects were able to identify the four facial cues. During testing, when the verbal and situational cues were presented, the child would be asked "How does this child feel? Point to the face—does he feel happy, sad, angry or scared?" One point would be given for each correct response. There were six questions and the possible score range was 0- 6.

3.10.4.4 Play Observations

During the 10 sessions of thematic fantasy play training, the two groups were each observed for twenty minutes during their free play periods over a period of two weeks or ten sessions. The observer would watch for the presence of any form of fantasy play. Fantasy play referred to any evidence of a subject engaging in make- believe object use, actions or role play. When such play behaviour occurred, the names of the children involved were recorded. A comparison was made between experimental and control subjects who were observed at least once involved in such play during the first 5 observations, during the second 5 observations and over all 10 sessions. In addition, the change in the number of subjects observed engaging in fantasy play during free play periods from the first 5 observations to the second 5 set of observations would be examined for both groups of subjects separately.

3.11 Methods of Control

To reduce the confounding factor of maturation, age was held constant as far as possible as the subjects were all five- year- olds from two intact kindergarten classes. The length of time for each testing task did not exceed 15 minutes per subject to avoid fatigue, boredom and loss of concentration. Interactions between subjects were minimal because the set up of the preschool did not give much time for the subjects from different classes

to interact. Random ordering of the tasks and the items in the task during the testing procedures further reduced imitation of test answers.

The experimenter was very aware and alert to keep the amount of verbal guidance in both the experimental and control groups to be as far as possible equivalent.

3.12 Data Analysis

The mean scores and standard deviations were calculated to describe the difference in performance of the control and experimental groups in the total perspective-taking (PTA) scores and the sub- scores for each category of perspective- taking; i.e. the perceptual perspective- taking (PPT), the cognitive perspective- taking (CPT) and the affective perspective- taking (APT).

The main analysis involved a one- way analysis of covariance (ANCOVA) on total post- test scores in which the pre- test scores served as the covariate. A further analysis using separate ANCOVAs was performed on each of the measures used; i.e. perceptual perspective- taking (PPT); cognitive perspective- taking (CPT) and affective perspective- taking (APT). ANCOVA was used here to permit equivalent posttest means comparison since intact classes were used in the main study. Analysis of covariance (ANCOVA) will provide an elegant means of reducing systematic bias, as well as within-groups error. To determine whether the independent variable, thematic fantasy play treatment, is indeed having an effect, the influence of an extraneous variable (the covariate which is the pre- test scores) on the dependent variable, post- test scores, is statistically controlled during the analysis. In other words, there is an attempt to reduce error variance due to individual differences. ANCOVA requires that different participants perform in each condition and thus is suitable for use in analyzing the present study.

Using a t- test with different scores would have served to maximize the error involved. As such, ANCOVA would be a more powerful F- test.

A chi- square analysis was performed on the counts of fantasy play occurring in free play sessions to analyze significant increase in incidence of fantasy play after each fantasy play training session.

Chapter Four: RESULTS

RESULTS

4.1 Overview

The data are analysed in two parts. The first part tested the primary hypotheses for the effects of thematic fantasy play on the perspective- taking ability of preschool children. This consisted mainly of four one- way univariate analyses of covariance. The second segment tested the free play observations for the hypothesis of significant changes in fantasy play frequency using chi- square analysis. Tests of assumptions necessary to perform ANCOVA are addressed in the following section (Coakes & Steed, 2000).

4.2 Tests of Assumptions and Effects on the PTA Indices

There are six assumptions to address before conducting an ANCOVA:

1. Independence- the individual's scores on both the dependent variable and the covariate should be independent of those scores for all the other participants.
2. Normality- the dependent variable should have a normal distribution for participants with the same score on the covariate and in the same group. The researcher would want to obtain normality at each score on the covariate. If the scores for the covariate alone are normally distributed, then ANCOVA is robust to this assumption.
3. Linearity- a linear relationship of the dependent variable to the covariate in each group should be the same.
4. Homogeneity of regression slopes- the relationship of the dependent variable to the covariate in each group should be the same.
5. Independence of covariate and treatments- when the researcher removes the proportion of shared variability between the dependent variable and the covariate, the researcher must be careful that some of the effect of the independent variable are not removed. A researcher could avoid this, to some extent, by measuring the

covariate before the beginning of the experiment and also randomly allocating participants to the different levels of the independent variable.

6. Reliability of the covariate- the instrument used to measure the covariate should be reliable.

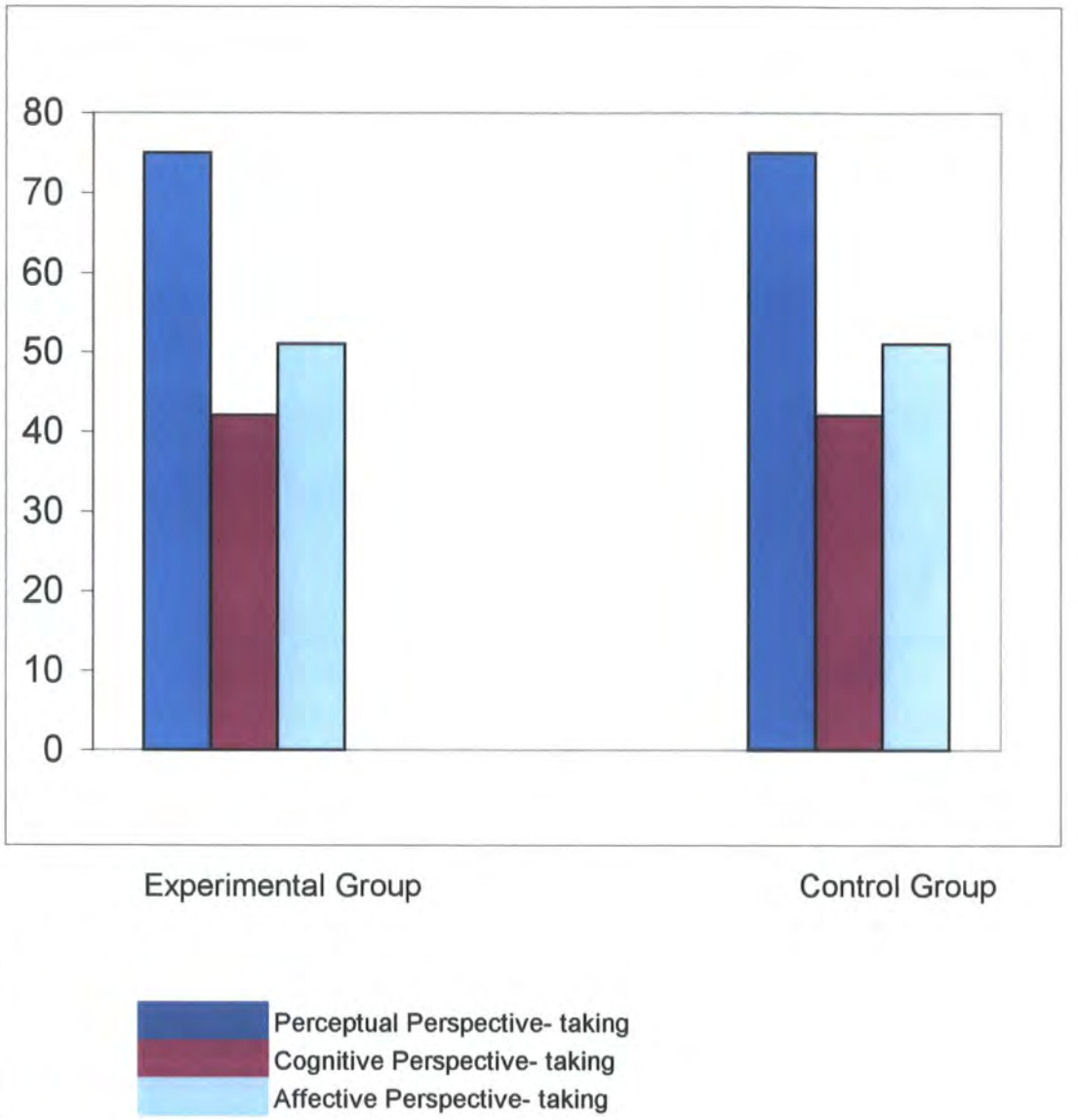
The raw data is recorded in Appendix J and the coding scheme is also attached for reference. Figure 1 shows the pretest scores for both control and experimental groups and they actually perfectly matched for each perspective- taking measures, PPT, CPT and APT.

Four one- way univariate analyses of covariance (ANCOVA) were performed on the post- test scores of the perspective- taking measures. The purpose of these analyses was to test the main hypotheses for the effects of thematic fantasy play on the perspective- taking ability on preschoolers. The dependent variable of each analysis was the posttest total score, posttest PPT score, posttest CPT score and posttest APT score respectively, with their corresponding pretest scores used as the covariate.

As mentioned in the previous section, the ANCOVA test for differences assumes a constant regression relationship among groups. Therefore the test for parallelism is a test for the validity of this assumption and it also tests whether the regression coefficients are constant over groups. The results of this series of tests for each ANCOVA (with df 1, 26, F[total]= 1615.79; F[PPT]= 186.24; F[CPT]= 109 and F[APT]= 103.23; $p<0.05$) were judged to be non- significant as expected; i.e., the tests indicated that there were homogeneous regression coefficients and therefore, parallel regression lines in the cells. As the covariate scores which are the pretest scores were collected before the application of the treatment to the experimental group, the covariates in each analysis were judged to be reliable for covariance analysis.

Figure 1

Pretest Scores for Experimental and Control Groups



4.3 Results Relating to Hypothesis 1

The first hypothesis is that using a battery of perspective- taking tasks, preschool children tutored in thematic fantasy play will show a significant increase in performance on total posttest perspective- taking measures than a comparable group with no thematic fantasy play tutoring. This total posttest score was obtained by adding the posttest scores of the cognitive (CPT), perceptual (PPT) and affective (APT) perspective- taking tasks scores.

The means, adjusted means and standard deviations for total scores are contained in Table 3. It should be noted that the posttest score is higher than the pretest score (See Figure 2) and that the subjects in the experimental group obtained a substantially higher total posttest score than those in the control group.

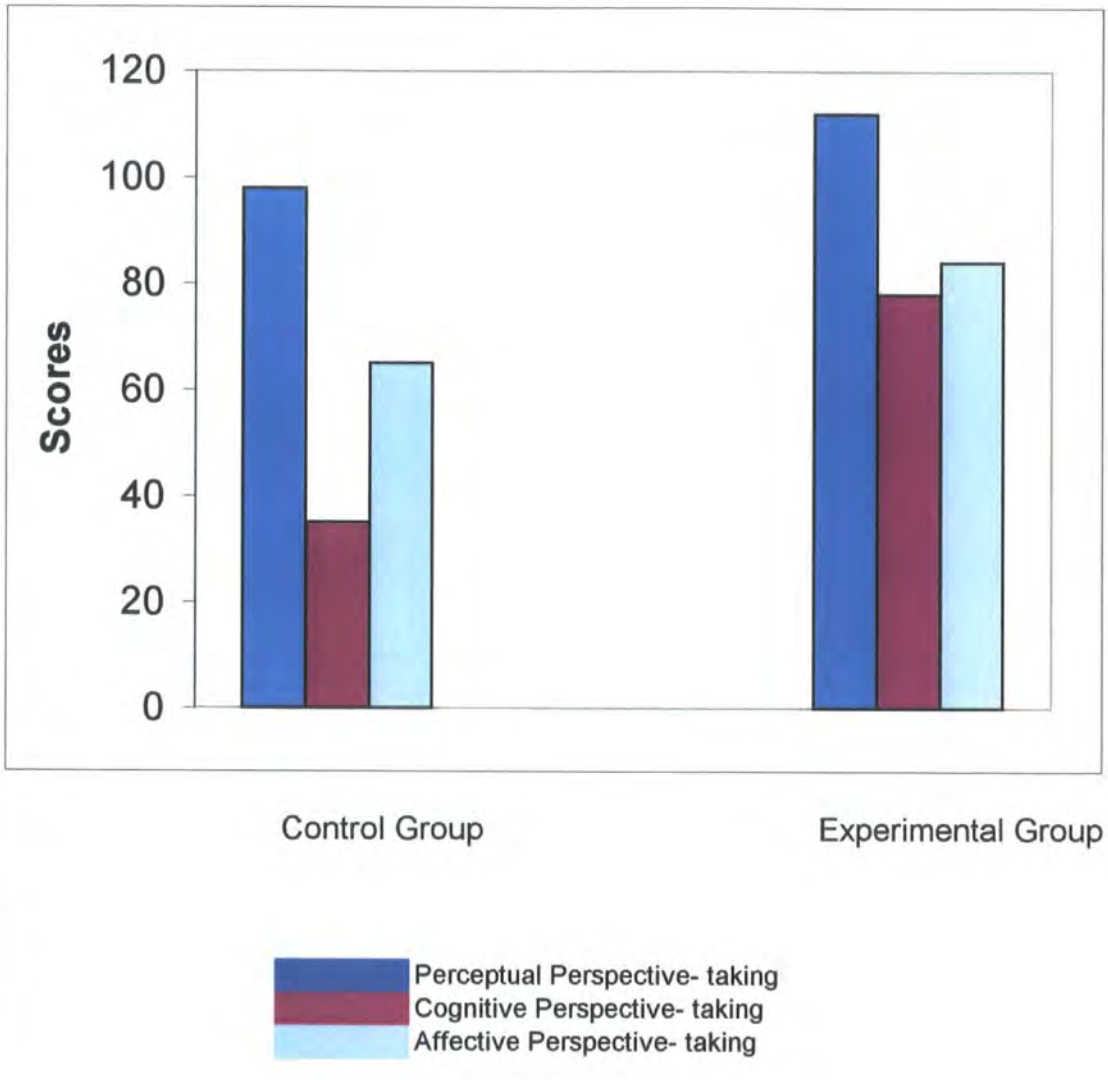
Table 3 Means and Standard Deviations of Control and Experimental Groups for Total Scores

Group	N	Pretest Mean [S. D.]	Posttest Mean [S. D.]	Adjusted Mean
Control	14	12 [0.55]	14.14 [0.66]	13.07
Experimental	14	12 [0.55]	19.57 [0.51]	15.79

A one- way analysis of covariance was performed on total posttest scores, using the total pretest scores as the covariate. The results of ANCOVA indicated a significant play effect (for total scores; $F[1, 26]= 710.17$, $p<0.01$) i.e., thematic fantasy play does influence the perspective- taking ability of preschool children. The results offer clear

Figure 2

Posttest PTA Scores for Control and Experimental Groups



support for hypothesis 1 that tutoring children with thematic fantasy play will enhance these children's perspective- taking ability.

Table 4 Analysis of Covariance: Comparison of Groups on Total Scores

Source of Variation	Sum of Squares	D. F.	Mean Square	F
Treatment	248.56	1	248.56	710.17
Within Gp	9.04	26	0.35	

Significant at $p < 0.01$

4.4 Results Relating to Hypotheses 2a, 2b and 2c

The second hypothesis is that after thematic fantasy play training, the experimental group receiving the treatment will score higher than subjects in the control group across perceptual (PPT), cognitive (CPT) and affective (APT) perspective- taking measures. The means, adjusted means and standard deviations for the sub- scores of perceptual (PPT), cognitive (CPT) and affective (APT) perspective- taking are contained in Table 5. It can be seen that the posttest scores are higher than the pretest scores and that the experimental subjects obtained higher posttest scores than the control subjects.

Table 5 Means and Standard Deviations of Control (N=14) and Experimental Groups (N=14) for PPT, CPT and APT Scores

	Control Group Pretest Mean [S. D.]	Posttest Mean [S. D.]	Adjusted Mean
PPT Scores	5.36 [0.50]	7 [0]	6.18
CPT Scores	3 [0]	2.5 [0.76]	2.75
APT Scores	3.64 [0.50]	4.64 [0.50]	4.14

	Experimental Group		
	Pretest Mean [S. D.]	Posttest Mean [S. D.]	Adjusted Mean
PPT Scores	5.36 [0.50]	8 [0]	6.68
CPT Scores	3 [0]	5.57 [0.51]	4.29
APT Scores	3.64 [0.50]	6 [0]	4.82

A breakdown of the total pretest and posttest scores for each category of perspective- taking ability is contained in Figures 3, 4 and 5.

The three parts, 2a, 2b and 2c to the second hypothesis of perceptual (PPT), cognitive (CPT) and affective (APT) perspective- taking measures, stated that the group with treatment condition of thematic fantasy training, will display a significant increased performance on the perceptual, cognitive and affective perspective- taking measures than the control group. Results of one- way univariate ANCOVAs showed a significant treatment effect (for perceptual perspective scores; $F[1, 26]=$ infinity, $p<0.01$). Thus, the three parts 2a, 2b and 2c of the second hypothesis have been supported. Laid out below after this paragraph, readers can see for themselves in the following three tables: Table 6 reports the ANCOVA for perceptual perspective- taking measure, Table 7 reports the ANCOVA for cognitive perspective- taking measure and Table 8 reports the ANCOVA for affective perspective- taking measure.

Figure 3 PPT Scores
By Treatment Group

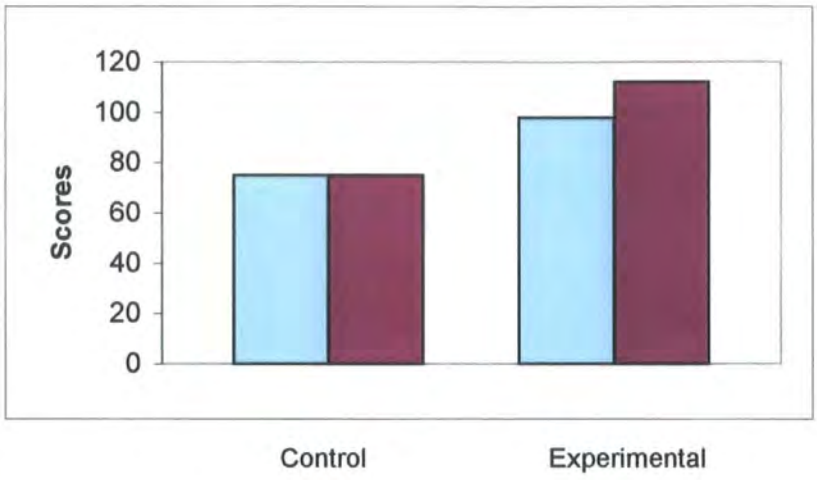


Figure 4 CPT Scores
By Treatment Group

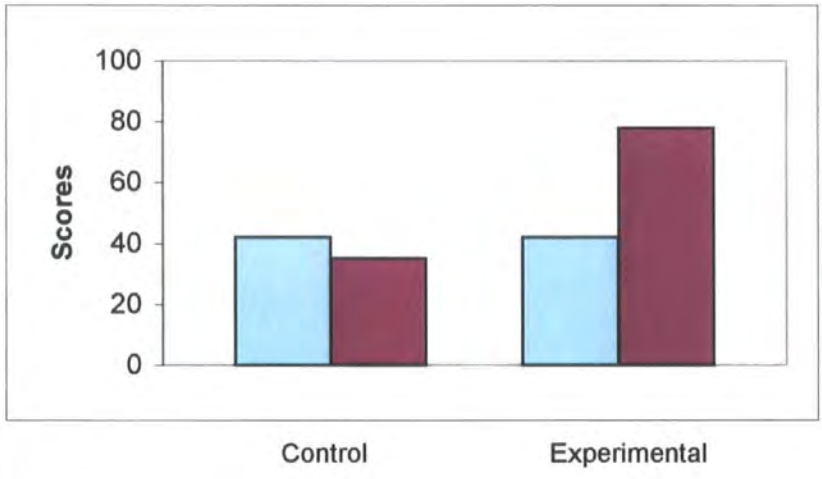


Figure 5 APT Scores
By Treatment Group

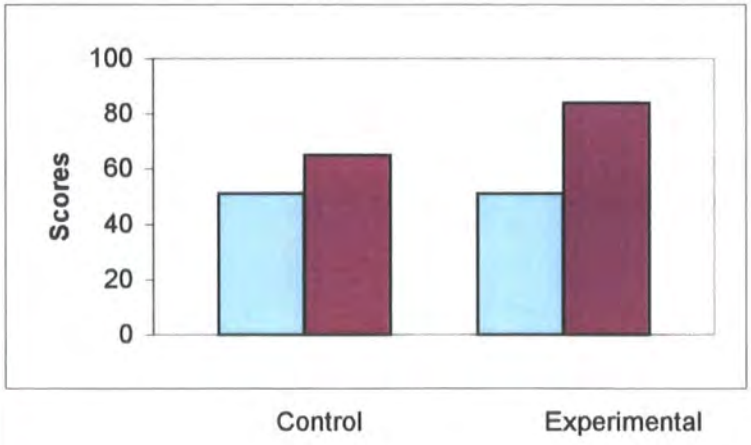


Table 6 **Analysis of Covariance: Comparison of Groups on PPT Scores**

Source of Variation	Sum of Squares	D. F.	Mean Square	F
Treatment	3.76	1	3.76	infinity
Within Gp	0	26	0	

PPT pretest scores used as covariate
Significant at $p<0.01$

Table 7 **Analysis of Covariance: Comparison of Groups on CPT Scores**

Source of Variation	Sum of Squares	D. F.	Mean Square	F
Treatment	19.04	1	19.04	63.47
Within Gp	7.73	26	0.30	

CPT pretest scores used as covariate
Significant at $p<0.01$

Table 8 **Analysis of Covariance: Comparison of Groups on APT Scores**

Source of Variation	Sum of Squares	D. F.	Mean Square	F
Treatment	4.92	1	4.92	37.85
Within Gp	3.25	26	0.13	

APT pretest scores used as covariate
Significant at $p<0.01$

4.5 Tests of Changes in Fantasy Play Frequency

Hypothesis 3a examines the issue whether the group with treatment condition, Thematic Fantasy Play, will show a significant increase in the incidence of fantasy play during free play sessions than the control group. The results of the fantasy play observations over 10 sessions are summarized in Table 9. Hypothesis 3b examines the

change in the number of preschool children observed engaging in fantasy play from the first 5 (F5) to the second 5 (S5) set of observations for both groups.

Table 9 Frequency of Subjects At Least Once Engaging in Fantasy Play

	F5	S5	Overall 10
Experimental (TFP)	10	14	14
Control (No TFP)	4	6	7

Legend: F5- First five observation sessions
S5- Second five observation sessions
Overall 10- over total of 10 observation sessions

Chi- square analyses for relatedness were employed to compare the proportion of experimental subjects in fantasy play at least once during first 5 (F5), during second 5 (S5) and over all 10 sessions of free play sessions.

More experimental subjects were observed at least once engaging in fantasy play during the 10 sessions, with 100% or all 14 of the experimental subjects observed at least once engaged in fantasy play as opposed to 50% or 7 control subjects observed. Thus, 50% or 7 of the control subjects were never observed in fantasy play (χ- square= 17.54, df= 2, $p< 0.05$). Thus, hypothesis 3a has been supported. Thematic fantasy play training apparently enhances the probability that preschool children will engage more in fantasy play during free play periods.

More importantly, an analysis of the changes in frequency of spontaneous fantasy play over the observation period (spanning 10 sessions of observations covered during the treatment) indicate that the differences observed is an effect of the treatment. The data for this analysis is presented in Table 10.

Table 10 Changes in Frequency of Fantasy Play for the Experimental Group

		S5 Sessions	
		xx	++
F5 Sessions	++	0	10
	xx	0	4

Legend: ++- Observed in fantasy play
xx - Was not observed in fantasy play
F5- First five observation sessions
S5- Second five observation sessions

It was observed that over the first 5 observations, 71.4% or 10 of the experimental subjects participated in fantasy play. During the second 5 sessions, 100% or all 14 of the experimental subjects were observed in fantasy play activities. Out of the total 14 experimental subjects during all 10 of the observation sessions, 4 subjects participated in fantasy play during the second 5 sessions who had not engaged in fantasy play during the first 5 sessions. The chi- square test for change in frequencies showed a significant increase (χ- square= 19.14, df= 1, $p< 0.05$). Thus hypothesis 3b has been supported.

4.6 Summary of Analyses

The tests of the general hypotheses in this study indicate that the thematic fantasy play condition showed a significant increase in the perspective- taking measures than the control group. The differential effect was found most evident on the perceptual perspective- taking measure and the cognitive perspective measure because these two measures in the control group actually decreased at the posttests. In addition, the subjects' engagement in fantasy play during free play periods was observed. Chi- square analyses yielded a significant increase in number of experimental subjects participating in fantasy play during the treatment.

Chapter Five: DISCUSSION AND IMPLICATIONS OF FINDINGS

DISCUSSION AND IMPLICATIONS OF FINDINGS

5.1 Introduction

This chapter presents an interpretation of the results documented in the preceding chapter. Problems encountered during this research procedure will be highlighted. Implications for future research, a play- based curriculum and preschool teachers' training will also be discussed. In considering the results, it should be borne in mind that generalizations are based on a relatively small sample. However, I am not discouraged with the small sample because no matter how small the sample, research has the potential to be a powerful agent of educational change (Mills, 2003). This kind of research leads to developing early childhood practitioners with professional attitudes that embrace action, progress and reform rather than stability and mediocrity.

5.2 Findings of the study

The findings of the study indicated that thematic fantasy play applied to preschool classrooms was able to produce positive effects for preschoolers' perspective- taking ability. The main finding of this study confirmed that there was a statistically significant ($p<0.05$) difference between the total perspective- taking scores of the experimental group with thematic fantasy play treatment and the control group without thematic fantasy play treatment. This finding replicated the results of Burns and Brainerd's (1979) and Cohn's (1984) experiments and led to the conclusion that it was the thematic fantasy play factor which accounted for the increase in scores because if adult- child verbal interaction was a significant determinant, then the control group would also had improved its posttest scores. But the results showed differently.

As pointed out in the literature review, most of the control groups in earlier studies (Fink, 1976; Burns and Brainerd, 1979) were ill- defined in that scarce

information about the control conditions were made known. As a result, adult- child verbal interaction proved a confounding variable. As for this study, it was defined earlier that adult- child verbal interaction would be satisfactorily matched fairly. The control group was characterized by a routine classroom teacher- guided discussion of the fairy tale stories read to the children while the experimental group was also characterized by the similar routine classroom teacher- guided discussion of the same fairy tale stories read to the children but amidst thematic fantasy play facilitated by the teachers. In other words, the sole major difference between the two groups, as operationally defined in Chapter Three, is the use of thematic fantasy play in the experimental group. Hence, as predicted, thematic fantasy play has beneficial effects on the total scores in perspective-taking measures of preschool children.

The conceptual framework of Mead and Vygotsky offers an explanation for the findings of this study. In thematic fantasy play, the preschool children shared fantasy play episodes and experienced a role different from their own. Participating in such roles, these children became aware of each other's roles and learned the social rules of behaviour such as actions and language which govern their roles in the play frame. In acting out these covert rules, a child thereby obtained a better awareness of the other's feelings, thoughts and perceptual perspectives and therefore preschool children who had undergone the fantasy play treatment scored better in the perspective- taking tasks compared to their counterparts who did not undergo fantasy play treatment.

The posttest scores for each domain of perspective- taking were further analyzed in detail. The analysis for covariance for the perceptual perspective- taking (PPT) scores indicated a significant difference between the thematic fantasy play condition and the control condition ($p<0.05$).

The results of the study also provided support for the contention (Marshall & Hahn, 1967; Feitelson, 1972; Freyberg, 1973) that thematic fantasy play tutoring affects the free play behaviour of young children. The findings showed that with thematic fantasy play tutoring, more children are seen engaging in fantasy play during their free play periods. All 100% of the experimental subjects were seen engaging at least once in fantasy play during free play throughout the duration of the thematic fantasy play tutoring. In contrast, 50% of the control subjects were never observed in fantasy play during their free play sessions. In addition, a significant increase was found with experimental subjects participating in fantasy play in the second set of observations.

Following the discussion carefully so far, it is puzzling that there was little improvement in the cognitive perspective- taking measures (retelling of the boy with the angry dog story) in both the experimental and control groups. In fact, a possible explanation is that even though the researcher had tried to tailor the cognitive perspective- taking task to the children's level of development, the task might still have been too complex for preschoolers in Singapore because of their difficulty and low competence in using the English language.

If I had a chance to redo the study, for this particular part of measuring preschoolers' cognitive perspective- taking ability, I would like to borrow the 'Theory of Mind' task (Wimmer and Perner, 1991) which is simpler compared to this retelling of The Boy with Angry Dog Story. In hindsight, this retelling of the boy with angry dog story was more a test on a child's verbal competence than his or her cognitive perspective- taking ability. The 'Theory of Mind' task involves the enactment of the story of a protagonist named Maxi. In this story, Maxi leaves a piece of chocolate in a cupboard at a particular location (A), and then leaves the room. In his absence, his mother

transfers the chocolate to another cupboard in another location (B). The ignorant Maxi reenters the scene and wants his chocolate. The subject is then asked to predict where Maxi will look for the chocolate. With control for linguistic factor, this would allow the subjects to point to either location (A) or location (B) where Maxi would search for his chocolate. This task as compared to the retelling of the Boy with Angry Dog story would have been less complex in the response mode. Moreover, on a cognitive plane, a child's acquisition of a 'Theory of Mind' entails an important change in the way that child thinks about the world which involves "the simultaneous recognition that there is a single reality but that different people, or the same people at different times, may have different representations of that reality" (Moore & Frye, 1991). In other words, the 'Theory of Mind' task would have sufficed the cognitive perspective- taking component in the undertaken thematic fantasy play study.

Nevertheless, the results on the whole of the study have adequately shown that thematic fantasy play indeed has beneficial effects on the perspective- taking ability and free play behaviour of preschool children. Therefore, based on these results, I would like to propose recommendations for current teaching practice and future play research.

5.3 Implications for Practice

In Singapore, children spend about four years and for some a period of even longer than four years in preschool and therefore, practitioners must have a clear picture of what these years are for. The market value of a Singaporean preschool or kindergarten is generally reflected in a highly structured curriculum because many parents favour preschools with an emphasis on academic skills. A play centred curriculum with little direct instruction makes parents very nervous. However, our present knowledge about the effects of thematic fantasy play on children's social cognitive learning and development

demands an emphatic change in teachers' attitudes as well as the preschool curriculum. This study has provided a Singaporean context for the use of thematic fantasy play within a highly structured and academic curriculum. Thematic fantasy play can be easily fitted into our highly structured curriculum in that it does not require the teacher to completely give up structuring young children's learning experiences. In thematic fantasy play, there is a revision of the one directional teacher- learner relationship in our traditional preschool classroom. Embedding thematic fantasy play into a preschool curriculum would forge new teacher- learner relationships. Although the teacher continues to structure children's play by guiding them in reenactment of fairy tales, these children absorbing the developmentally appropriate play experiences are able to generate more fantasy play episodes during their own free play sessions. As a result of the structured nature of thematic fantasy play, stressing its inclusion and inculcation as part of the preschool curriculum will not cause the teachers to feel a loss of important curriculum time. By incorporating thematic fantasy play as an extension of an English Language Arts Programme through story telling sessions, there is the extended implication that other important and relevant domains such as perception and affect are not neglected. Hence, with the use of thematic fantasy play, children's needs are matched to the use of a developmentally appropriate vehicle and children's perspective- taking ability is enhanced. The major asset of thematic fantasy play as in its allowance for learning by physical moving around lies in its appeal to preschool children who generally are very active people and as such, is a technique that deserves further use within Singaporean preschools.

5.4 Implications for Future Research

In discussing implications for future research, I would like to look through with the aid of a lens called postmodernism. Inevitably, children are growing up in a postmodern world whose point of view is characterized largely by a profound sensitivity to the fact that the world is composed of many peoples whose lives, histories and social conditions are enormously varied (Anderson, 1995). Because postmodernism primarily focuses on the diversity of belief systems, it fuels my interest in studying children's perspective- taking ability. I would like to see a future world of young children maturing into responsible adults understanding and respecting the diverse perspectives of other people so different from their own. But how does play relate and integrate into the necessity of children eventually becoming part of a postmodern society? A quick answer to this question is continual future research through practice. A more thorough answer however should have been continual future research through a theory of practice that embraces a system of values and creates in the classroom a microcultural expression of those values. Paying attention to the importance of understanding the historical- social-cultural context of early childhood education, I conclude that play is the chosen cornerstone of this theory of practice. It reflects our values in attempting to make education relevant to the broad spectrum of interests and backgrounds that early childhood education must serve in a postmodern world.

Therefore, more action research where lay classroom teachers are the researchers will be required to further understand the effects of play on their young charges. A preschool curriculum captitalising play as a teaching method, play as a learning strategy, play as evaluative procedures, play as encouraging more positive attitudes and values,

play as management and administration in increasing the efficiency of different aspects of school life, will then be a hard core play- centred preschool curriculum.

Chapter Six: CONCLUSIONS

CONCLUSIONS

This thesis has at its heart not merely a justification of play, but an emphatic demand that play should be regarded as an essential vehicle for early learning. Returning to the tripartied relationship of children's play, learning and development, play is indeed a vehicle for motivating children to explore, discover, take risks, make mistakes and cope with failure because play permits children to be involved in organizing, making decisions, making choices, practicing, persevering and expressing feelings.

This present study promotes the educational value of thematic fantasy play. As discussed previously, the perspectives of Mead and Vygotsky offer an explanation for the findings of this study. In thematic fantasy play, the preschool children share a fantasy play episode and experience a role different from their own. Participating in these roles, preschool children become aware of each other's roles and learn the social rules of behaviour such as actions and language which govern the roles in the play frame. In acting out these covert rules, the preschool child obtains a better awareness of the other's feelings, thoughts and perceptual perspectives. The results of this study also provide support for the contention (Feitelson, 1972 and Freyberg, 1973) that play tutoring affects the free play behaviour of young children.

To conclude, the present study has provided a Singaporean context for the use of play within our highly structured and academic curriculum. The local preschool teacher who is often unaccustomed to a free and unstructured mode of teaching, can now use thematic fantasy play as a central element in the daily schedule of the preschool curriculum. As a result of the structured nature of thematic fantasy play, stressing its inclusion as part of the preschool curriculum will not cause the teachers to feel a loss of important curriculum time. By incorporating thematic fantasy play as an extension of

their story- telling sessions, there is the extended implication that other important areas are not neglected. Hence, with the use of thematic fantasy play, the needs of the preschool children are matched to the use of a developmentally appropriate vehicle and social cognitive growth is enhanced.

References and Bibliography

REFERENCES and BIBLIOGRAPHY

Anderson, W. (1995). *The truth about truth*. New York: Jeremy Tarcher- Putman.

Athey, I. (1988). The relationship of play to cognitive, language and moral development. Bergen, D. (Ed.), *Play as a medium for learning and development: A handbook of theory and practice*, pp. 81- 102. Portsmouth: Heinemann.

Atkin, J. (1991). Thinking about play. Hall, N & Abbott, L. (Eds). *Play in the curriculum*. London: Hodder & Stoughton.

Axline, V. (1964). *Dibs: In Search of Self*. New York: Ballantine.

Barnett, L. & Storm, B. (1981). Play, pleasure and pain: A reduction of anxiety through play. *Leisure sciences*, 4, 161- 175.

Bennett, N., Wood, l. & Rogers, S. (1997). *Teaching through play: Teacher's thinking and classroom practice*. United kingdom: open University Press.

Berenstain, S. & Berenstain, J. (1980). *Inside, outside upside down*. New York: Random House, Inc.

Borke, H. (1971). Interpersonal perception of young children: Egocentrism or empathy? *Developmental psychology*, 5, 263- 269.

Borke, H. (1972). Chandler and Greenspan's "Ersatz egocentrism": A rejoinder. *Developmental psychology*, 7, 107- 109.

Borke, H. (1973). Interpersonal perception of young children: Egocentrism or empathy? *Development Psychology*, 5: 263- 269.

Bornstein, M., Vibbert, M., Tal, J. & O' Donnell, K. (1992). Toddler language and play in the second year: Stability, covariation and parenting. *First language*, 12, 323- 338.

Brown, S. (1994). Animals at play. *National geographic*, 186 (6), pp. 2-35.

Bruner, J. (1972). The nature and uses of immaturity. *American Psychologist*, 27, 687- 708.

Bruner, J. (1983). Play, thought and language. *Peabody journal of education*, 60 (3), 60- 69.

Burbules, N. & Peters, M. (2001). Ludwig Wittgenstein. *Fifty modern thinkers on Education: From Piaget to the present*. Palmer, J., Bresler, L. Cooper, D. (Eds.), London: Routledge

Burns, S. and Brainerd, C. (1979). Effects of constructive and dramatic play on perspective taking in very young children. *Development Psychology*, 15: 512- 521.

Cazden, C. (1976). Play with language and meta- linguistic awareness: One dimension of language experience. Bruner, J., Jolly, A & Sylva, K. (Eds.), *Play and its role in development and evolution*, pp. 603- 608. New York: Basic Books.

Chandler, M. (1977). Social cognition: A selective review of current research. Overton, W. and McCarthy- Gallagher, J. (Eds.). *Knowledge and Development* Volume 1. New York: Plenum Press.

Chandler, M. & Greenspan, S. (1972). Ersatz egocentrism: A reply to Borke. *Developmental psychology*, 7, 104- 106.

Cheyne, J. (1982). Object play and problem solving: Methodological problems and conceptual promise. Pepler, D. & Rubin, K. (Eds), *The play of children: Current theory and research*,pp. 79- 96. Basel: Karger.

Christie, J. (1983). The effects of play tutoring on young children's cognitive performance. *Journal of educational research*, 76, 326- 330.

Christie, J. (1995). The importance of play. *Readings for Linking Literacy and Play.* Newark, DE: International Reading Association.

Coakes, S. & Steed, L. (2001). *SPSS: Analysis without anguish: version 10.0 for Windows*. Australia: John Wiley & Sons Australia Ltd.

Cohen, D. (1993). *The development of play*. New York: New York University Press.

Cohn, M. (1984). *Sociodramatic play and adult guidance: Effects of perspective taking in young children*. Dissertation Abstracts International, 44, 3952.

Connolly,J. & Doyle, A. (1984). Relation of social fantasy play to social competence in preschoolers. *Developmental psychology*, 20, 797- 806.

Creasey, G., Jarvis, P. & Beck, L. (1998). Play and social competence. Saracho, O. & Spodek, B. (Eds.), Multiple perspectives on play in early childhood education, pp. 116- 143. Albany: University of New York Press.

Dansky, J. (1980). Make believe: A mediator in the relationship between play and associative frequency. *Child Development*, 51: 576- 579.

Dansky, J. & Silverman, I. (1973). Effects of play on associative fluency. *Developmental psychology*, 9, 38- 43.

Dansky, J. & Silverman, I. (1975). Play: A general facilitator of associative fluency. *Developmental psychology, 11*, 104.

Department of Education and Science (1989). The education of children under five. HMI Aspects of Primary Education Series. London: HMSO.

Department of Education and Science (1990). Starting with quality: The report of the committee of inquiry into the quality of the educational experience offered to 3 and 4 year olds. London: HMSO.

Diaz Soto, L. (1995). *The politics of early childhood education*. New York: Peter Lang.

Dickson, D. (1994). Features of early childhood classroom environments that support development and literacy. Duchan, J., Hewitt, L. & Sonnenmeier (Eds.), Pragmatics: From theory to practice, pp. 185- 201. New Jersey: Prentice Hall.

Dockett, S. (1994). *Pretend play and young children's developing theories of mind.* Australia: University of Sydney.

Donaldson, M. (1978). *Children's minds*. London: Fontana.

Dunn, L. & Herwig, J. (1992). Play behaviours and convergent and divergent thinking skills of young children attending full- day preschool. *Child study journal*, 22 (1), 23- 37.

Elkind, D. (1981). The hurried child: Growing up too fast too soon. CA: Addison-Wesley.

Elkind, D. (1986). Formal education and early childhood education: An essential difference. *Phi Delta Kappan*, 631- 636.

Elkind, D. (1990). Academic pressure: too much too soon: The demise of play. Klugman, E. & Smilansky, S. (Eds.), *Children's play and learning: Perspectives on policy implications*, pp. 3- 17. New York: Teachers College Press.

Enz, B. (1995). Adult roles in supporting children's literacy. *Readings for Linking Literacy and Play*. Newark, DE: International Reading Association.

Erikson, E. (1940). Studies and interpretations of play. Part 1: Clinical observations of play disruption in young children. *Genetic psychology monograph*, 22, 557- 671.

Erikson, E. (1963). *Childhood and society*. New York: Norton.

Erikson, E. (1972). Play and actuality. Piers, W. (Ed.) *Play and development*. New York: Norton.

Erikson, E. (1977). *Toys and reason*. New York: Norton.

Feffer, M. & Gourevitch, V. (1960). Cognitive aspects of role taking in children. *Journal of psychology*, 28, 383- 396.

Fein, G. (1984). The self- building potential of pretend play in Yawkey, T. & Pelligrini, A (eds.). *Child's Play: Developmental and Applied.* New Jersey: Lawrence Erlbaum Associates.

Fein, G. (1997). *Play and early childhood teacher education: Discussant remarks.* Washington, Association for the Study of Play Meetings.

Feitelson, D. (1972). Social interactions in heterogeneous preschools in Israel. *Child development*, 43, 1249- 1259.

Fink, R. (1976). Role of imaginative play in cognitive development. *Psychological Reports*, 39, 895- 906.

Fishbein, H., Lewis, S. & Feiffer, K. (1972). Children's understanding of spatial relations. *Developmental psychology*, 7, 21- 33.

Fisher, E. (1992). The impact of play on development: A meta- analysis. *Play and culture*, 5, 159- 181.

Flavell, J., Botkin, P., Fry, C., Wright, J. and Jarvis, P. (1968*). The Development of Role-taking and Communication Skills in Children*. New York: Wiley.

Forbes, D. (1978). Recent research on children's social cognition: A brief review. Damon, W. (Ed.), *New directions for child development No 1: Social cognition*. San Francisco: Jossey- Bass.

Ford, M. (1979). The construct validity of egocentrism. *Psychological bulletin*, vol. 86, 6, 1169- 1188.

Freyberg, J. (1973). Increasing the imaginative play of urban disadvantaged kindergarten children through systematic training. Singer, J. (Ed.), *The child's world of make- believe.* New York: Academic Press.

Frost, J., Wortham, S. & Reifel, S. (2001). *Play and Child Development.* New Jersey: Prentice Hall Inc.

Garvey, C. (1974). Some properties of social play. *Merrill- Palmer Quarterly*, 20.

Garvey, C. (1977). *Play*. Cambridge: Harvard University Press.

Garvey, C. (1979). An approach to the study of children's role play. *The quarterly newsletter of the laboratory of comparative human cognition* 41(4), 69- 73.

Garvey, C. & Berndt, R. (1977). The organization of pretend play. New York: Association of American Psychologist.

Golomb, C. & Cornelius, C. (1977). Symbolic play and its cognitive significance. *Developmental psychology,* 13, 246- 252.

Goncu, A (1993). Development of intersubjectivity in the dynamic play of preschoolers. *Early childhood research quarterly*, 8, 99- 116.

Goncu, A. & Kessel, F. (1984). Children's play: A contextual- functional perspective. Kessel, F. & Goncu, A. (Eds.), *Analyzing children's play dialogues.* San Francisco: Jossey- Bass.

Gottfried, A. & Brown, C. (1986). *Play Interactions: The Contribution of Play Materials and Parental Involvement to Children's Development.* Lexington: Johnson & Johnson Baby Products Company.

Gould, R. (1972). *Child studies through fantasy.* New York: Quadrangle Books.

Hall, S. (1995). In Hughes, F.; *Children, play and development* (2nd ed.). Massachusetts: Allyn Bacon.

Handford, S. (1954). *Aesop's Fables.* England: Puffin Books.

Herron, R. and Sutton- Smith, B. (1971). *Child's play.* New York: John Wiley & Sons, Inc.

Howes, C. & Matheson, C. (1992). Sequences in the development of competent play with peers: Social and social pretend play. *Developmental psychology*, 28, 961- 974.

Johnson, J., Christie, J. & Yawkey, T. (1999). *Play and early childhood development (2nd Ed.)*, New York: Longman.

Johnson, J., Ershler, J. & Lawton, J. (1982). Intellective correlates of preschoolers' spontaneous play. *Journal of general psychology,* 106, 115- 122.

Katz, L. (2000). Multiple perspectives on the quality of programmes for young children. Tan- Niam, C. & Quah, M. (Eds.), *Investing in our future: The early years.* Singapore: McGraw- Hill Book.

Kessler & Swadener, (1992). *Reconceptualizing the early childhood curriculum. Beginning the dialogue.* New York: Teachers College Press.

King, N. (1979). Play: The kindergartners' perspective. *Elementary School Journal,* 80, 81- 87.

King, N. (1982). Work and play in the classroom. *Social Education*, 46, 110- 113.

Kuczaj, S. (1981). Factors influencing children's hypothetical reference. *Journal of child language*, 6.

Kurdek, L. & Rodgon, M. (1975). Perceptual, cognitive and affective perspective taking skills in kindergarten through sixth grade children. *Developmental psychology*, 11, 643-650.

Leslie, A. (1987). Pretense and representation: The origins of theory of mind. *Psychological review*, 94, 412- 426.

Levin, H. & Wardwell, E. (1971). The research uses of doll play. Herron, E. & Sutton-Smith, B. (Eds.), *Child's play*, pp. 145- 184. New York: Wiley.

Lieberman, J. (1977). *Playfulness: its relationship to imagination and creativity.* New York: Academic Press.

Light, P. (1979). *The development of social sensitivity.* London: Cambridge University Press.

Lillard, A. (1998). Playing with a theory of mind. Saracho, O. & A. Spodek, B. (Eds.), *Multiple perspectives on play in early childhood education*, pp. 11-33. Albany: SUNY Press.

Linquist, T., Lind, J. & Harvey, D. (1977). Play in hospital. Tizard, B. & Harvey, D. (Eds.), *Biology of play.* Philadelphia: Lippincott.

Macintyre, C. (2001). *Enhancing Learning Through Play: A Developmental Perspective for Early Years Settings.* Great Britain, London: David Fulton Publishers.

Marshall, H. & Hahn, S. (1967). Experimental modifications of dramatic play. *Journal of personality and social psychology*, 5, 119- 122.

Mead, G. (1934). *Mind, Self and Society.* USA: Chicago Press.

Mead, M. (1975). Children's play style: Potentialities and limitations of its use as a cultural indicator. *Anthropological quarterly*, 48, 157- 181.

MOE (2003). *A framework for kindergarten curriculum.* Ministry of Education, Singapore. Singapore: Tien Wah Press Pte Ltd.

Monk, R. (2001). Bertrand Russell. *Fifty Major Thinkers on Education: From Confucius to Dewey.* Palmer, J., Bresler, L. & Cooper, D. (Ed.), London: Routledge

NAEYC (1996). Position Statement: Play and early childhood curriculum, *Young Children*, 5(6), 11- 16.

Neuman, S. (1995). Linking home and school. *Readings for Linking Literacy and Play.* Newark, DE: International Reading Association.

Pellegrini, A. (1980). The relationship between kindergartners' play and achievement in pretending, language and writing. *Psychology in schools*, 17, 530- 535.

Pellegrini, A. (1995). Boys' rough and tumble play and social competence: Contemporaneous and longitudinal relations. Pellegrini, A. (Ed.), *The future of play research*, pp. 107- 126. Albany: SUNY Press.

Pellegrini, A. Galda, L. (1982). The effects of thematically fantasy play training on the development of children's story comprehension. *American educational research journal*, 19, 443- 452.

Pellegrini, A. Galda, L. (1993). Ten years after: A reexamination of symbolic play and literacy research. *Reading research quarterly*, 28(2), 162- 177.

Pellegrini, A. & Jones, I. (1994). Play, toys and language. Goldstein, J. (Ed.), *Play, toys and child development*, pp. 27- 45. New York: Cambridge University Press.

Pellegrini, A., Galda, L., Dresden, J. & Cox, S. (1991). A longitudinal study of the predictive relations among symbolic play, linguistic verbs and early literacy. *Research in the teaching of English*, 25(2), 219- 235.

Peller, L. (1952). Models of children's play. *Mental hygiene*, 36, 66- 83.

Pepler, D. and Ross, H. (1981). Effects of play on convergent and divergent problem solving. *Child development*, 52, 1202- 1210.

Pepler, D. and Rubin, K. (1982).*The play of children: Current theory and research*. New York: Karger.

Piaget, J. (1962). *Play, dreams and imitation in childhood*. New York: Norton.

Piaget, J. & Inhelder, B. (1956). *The child's conception of space*. UK: Routledge & Kegan Paul.

Pollard, A. (1996). Values, understanding and power. Pollard, A. (Ed.), *Readings for reflective teaching in the primary school.* London: Cassell.

Rosen, C. (1974). The effects of sociodramatic play on problem solving behaviour among culturally disadvantaged preschool children. *Child Development*, 45: 920- 927.

Rubin, K. (1973). Role taking in childhood: A unitary construct? *Child development*, 44, 103- 110.

Rubin, K. (1978). Role taking in childhood: Some methodological considerations. *Child development*, 49, 428- 433.

Rubin, K. (1980). Fantasy play: Its role in the development of social skills and social cognition. Rubin, K. (Ed.), *Children's play*, pp. 69- 84. San Francisco: Jossey- Bass.

Rubin, K. (1982). Nonsocial play in preschoolers: Necessarily evil? *Child development*, 53, 651- 657.

Rubin, K. & Hayvern, M. (1981). The social and cognitive play of preschool- aged children differing with regard to sociometric status. *Journal of research and development in education*, 14, 116- 122.

Rubin, K., Fein, G & Vandenberg, B. (1983). Play. Mussed, P. (Ed.), *Handbook of Child Psychology: Vol 4, Socialization, personality and social development*, pp. 693- 774). New York: Wiley.

Rubin, K. & Maioni, T. (1975). Play preferences and its relation to egocentrism, popularity and classification skills in preschoolers. *Merrill palmer quarterly*, 21, 171- 179.

Saltz, E.; Dixon, D. and Johnson, J. (1977). Training disadvantaged preschoolers on various fantasy activities: Effects on cognitive functioning and impulse control: Preliminary results. *Journal of Education Psychology*, 66: 623- 630.

Saltz, E. and Johnson, J. (1974). Training for thematic- fantasy play in culturally disadvantaged children: Preliminary results. *Journal of Educational Psychology*, 66, 623- 630.

Sawyer, R. (1997). *Pretend play as improvisation: Conversation in the preschool classroom*. New Jersey: Erlbaum.

Selman, R. (1971). The relation of role taking to the development of moral judgement in children. *Child Development*, 42, 79- 81.

Selman, R. and Byrne, D. (1974). A structural- developmental analysis of levels of role- taking in middle childhood. *Child Development*, 45, 803- 806.

Shantz, C. (1975). *The development of social cognition*. Chicago: University of Chicago Press.

Silerstein, S. (1964). *The giving tree*. USA: Evil Eye Music, Inc.

Simon, T. & Smith, P. (1983). The study of play and problem solving in preschool children: Have experimenter effects been responsible for previous results? *British journal of developmental psychology*, 1, 289- 297.

Simon, T. & Smith, P. (1985). Play and problem solving: A paradigm questioned.*Merrill-Palmer Quarterly*, 31, 265- 277.
Singer, J. (1973). *The Child's World of Make- Believe: Experimental Studies of Imaginative Play*. New York: Academic Press Inc.

Singer, D. & Singer, J. (1990). *The house of make- believe: Children's play and the developing imagination*. Cambridge: Harvard university Press.

Slade, P. (1995). *Child Play: Its Importance for Human Development*. London: Jessica Kingsley Publishers Ltd.

Smilansky, S. (1968). *The effects of sociodramatic play on disadvantaged preschool children*. New York: John Wiley & Sons.

Smilansky, S. (1988). Sociodramatic play: It relevance to behaviour and achievement in school. Klugman, E. & Smilansky, S. (Eds.), *Children's play and learning: Perspectives and policy implications*, pp. 18- 42. New York: Teachers College Press.

Smilansky, S. and Shefatya, L. (1979). Narrowing socioeconomic groups in achievement through kindergarten reading instruction. *Journal studies in education*, 21, 4- 68.

Smilansky, S. and Shefatya, L. (1987).

Smilansky, S. and Shefatya, L. (1990). *Facilitating Play: A Medium for Promoting Cognitive, Socio- emotional and Academic Development in Young Children*. Gaithersburg, MD: Psychosocial & Educational Publications.

Smith, P. and Dodsworth, C. (1978). Social class differences in the fantasy play of preschool children. *Journal of genetic psychology*, 133, 183- 190.

Smith, P. and Syddall, S. (1978). Play and non- play tutoring in presschool children: Is it play or tutoring which matters? *Br. J. educ. psychol.* 48: 315- 325.

Smith, P., Dalgleish, M & Herzmark, G. (1981). A comparison of the effects of fantasy play tutoring and skills tutoring in nursery classes. *International journal of behavioural development*, 4, 421- 441.

Smith, P. & Whitney, S. (1987). Play and associative fluency: Experimenter effects may be responsible for previous positive findings. *Developmental psychology*, 23, 49- 53.

Soledad, S. (1982). *The assessment of affective perspective taking in young children*. Unpublished doctoral dissertation, University of Hawaii, USA.

Sutton- Smith, B. (1967). The role of play in cognitive development. *Young children*, 22, 361- 370.

Sutton- Smith, B. (1980). Piaget, play and cognition revisited. Overton, W. (Ed.), *The relationship between social and cognitive development.* New York: Erlbaum.
Sutton- Smith, B. (1998). *The ambiguity of play.* Cambridge: Harvard University Press.

Sutton- Smith, B. (1983). One hundred years of change in play research. *TAASP Newsletter,*9(2), 13- 17.

Sylva, K., Bruner, J. & Genova, P. (1976). The role of play in the problem solving of children 3- 5 years old. Bruner, J., Jolly, A. & Sylva, K. (Eds.), *Play:Its role in development and evolution,* pp.244- 257. New York: Basic Books.

Tamis- LeMonda, C. & Bornstein, M. (1991). Individual variation, correspondence, stability and change in mother and toddler play. *Infant behaviour and development*, 14, 143- 162.

Tamis- LeMonda, C. & Bornstein, M. (1993). Play and its relations to other mental functions in the child. Bornstein, M. & O'Reilly, A. (Eds.), *The role of play in the development of thought: New directions in child development*, Number 59, pp. 17- 27. San Francisco: Jossey- Bass.

Udwin, O. (1983). Imaginative play as an intervention method with institutionalized preschool children. *British journal of educational psychology*, 53, 32- 39.

Urberg, K. & Docherty, E. (1976). The development of role taking skills. *Developmental psychology*, 12, 198- 203.

Vandenberg, B. (1990). Play and problem solving: An elusive connection. *Merrill-Palmer Quarterly,* 36, 261- 272.

Vandenberg, B. (1998). Real and not real: A vital developmental dichotomy. Saracho, O. & Spodek, B. (Eds.), Multiple perspectives on play in early childhood education, pp. 295- 305. Albany: SUNY Press.

Van Hoorn, J., Nourot, P., Scales, B & Alward, K. (1999). Play at the centre of the curriculum, (2nd Ed.). New Jersey: Prentice Hall, Inc.

Vygotsky, L. (1976). Play and its role in the mental development of the child. In J. Bruner, A. Jolly & K. Sylva (Eds.), *Play: Its role in development and evolution* (pp. 537- 554). New York: Basic Books.

Vygotsky, L. (1978). *Mind in society: The development of higher mental processes.* Cambridge, MA: Harvard University Press.

Walsh, D.; Chung, S. and Tufekci, A. (2001). Friedrich Wilhelm Froebel. Fifty Major Thinkers on Education: From Confucius to Dewey. Palmer, J. (Ed.). London: Routledge.

Weir, R. (1962). *Language in the crib*. The Hague: Mouton.

Wimmer, H. & Perner, J. (1983). Beliefs about beliefs: Representation and constraining function of wrong beliefs in young children's understanding of deception. *Cognition*, 13, pp. 103-128.

Wolf, D. & Grollman, S. (1982). Ways of playing: Individual differences in imaginative style. Pepler, D & Ribin, K. (Eds.), *The play of children: Current theory and research*, pp. 46- 63. Basel, Switzerland: Karger.

Wolfgang, C. (1974). An exploration of the relationship between the cognitive area of reading and selected developmental aspects of children's play. *Psychology in the school*, 11, 338- 343.

Wordsworth, W. (2000). *Phillips encyclopedia 2001*. London: George Phillip Ltd.

Yawkey, T. and Pellegrini, A. (1984). *Child's Play: Developmental and Applied*. New Jersey: Lawrence Erlbaum Associates.

Youngblade, L. & Dunn, J. (1995). Individual differences in young children's pretend play with mother and sibling: Links to relationships and understanding of other people's feelings and beliefs. *Child development*, 66, 1472- 1492.

APPENDIX A

Straits Times Newspaper Article

Pre-school plan puts play on top

'It made me quite nervous at first... But towards the end of K2, I could tell my son was ahead – in how excited he was about school, and how curious and talkative he was.'
— housewife B. Radha, 32, whose son was taught the new curriculum

ever mind neat handwriting; switch to ctivity-based learning promises to urn out confident children who speak up

SANDRA DAVIE
DUCATION CORRESPONDENT

NDERGARTEN classes are out to get more noisy, and achers will stop standing at e front issuing orders and shing out worksheets.

Children will be encouraged to ask questions and talk their classmates. And they ll not have to turn in practice-perfect handwriting or tly-coloured drawings.

A new programme, developed by the Education Ministry, with help from experts re and in Britain, moves way from what currently ppens in many PAP Community Foundation (PCF) ndergartens.

All pre-schoolers will soon taught through play, activi- discovery and experiment methods already in use at any private kindergartens re.

The biggest impact will be t by the 75 per cent of chil- en who attend the 312 PCF ndergartens, where the emasis is on getting them in ape for Primary 1.

Pre-school teachers say the w programme may produce ildren who do not write or lour as neatly as the typical F product.

But it is likely to turn out ore confident children, eager to learn and able to comnicate easily with teachers l classmates alike.

The change, announced sterday, is based on the lat- research on how children arn and will affect about ,000 children in PCF cens.

It was tested over the last o years when 1,336 children 32 PCF kindergartens were vided into two groups, with e group trying out the new rriculum while the other yed with the old.

At the end of the second ar, youngsters under the lay" approach were a lot tter at problem-solving, hich includes matching and iring items and is important for mastering mathematics.

They also had better social skills, were more likely to discuss an activity and share knowledge with classmates, and more likely to speak up and ask questions.

They also sharpened their ability to speak English.

The biggest all-round impact was seen among children from lower-income and non-English-speaking homes.

Some parents whose children were picked to test the new system were worried at first that the youngsters might not be prepared well enough for Primary 1.

Housewife B. Radha, 32, said: "It made me quite nervous at first. My neighbour's child, who was doing the old curriculum, was bringing home worksheets and spelling lists, but my son had none.

"But towards the end of K2 I could tell that my son was ahead of my neighbour's child in more important ways — in how excited he was about school, and how curious and talkative he was."

No deadline has been set for pre-schools to implement the new approach, but all PCF kindergartens will adopt it, and start implementing some aspects soon.

The study also looked at the link between the qualifications of pre-school teachers and their ability to teach the new curriculum.

Not surprisingly, it found that those with diplomas in teaching pre-schoolers were better at using the new curriculum and engaging their pupils' parents.

Senior Minister of State (Education and Trade and Industry) Tharman Shanmugaratnam, who announced the change yesterday, said it followed a three-year effort by the ministry to raise the quality of pre-school education.

In 2000, the ministry drew up its expectations of what pre-school education should deliver, and set minimum qualifications for kindergarten teachers.

By 2006, all teachers must have certificates in pre-school education, and one in four, a diploma.

Only one in three PCF teachers now has a certificate and fewer than one in 10 have diplomas.

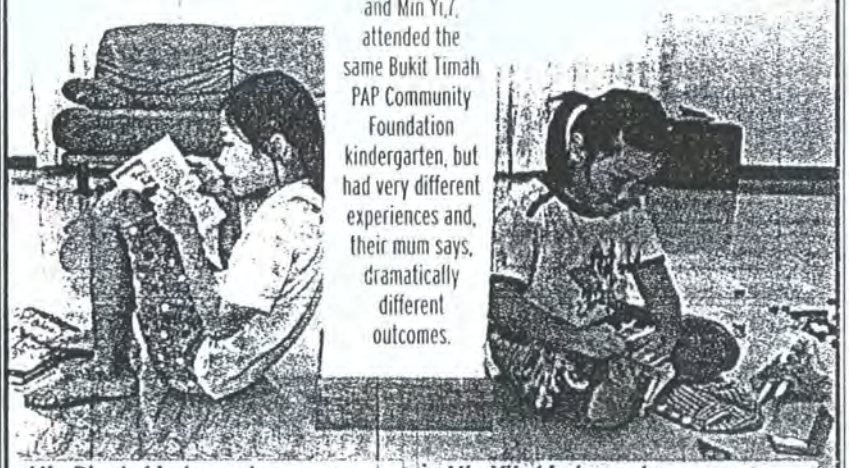
This contrasts with the situation at private kindergartens, where seven in 10 teachers are diploma holders.

The various standards will be formalised in a Kindergarten Bill, which will be introduced in Parliament. Under the Bill, kindergartens will be licensed.

But despite setting standards, the ministry is not taking over pre-school education, Mr Tharman said.

There will continue to be room for diversity and experimentation, in keeping with the Government's long-standing position on pre-school education.

DIFF'RENT STROKES



Sisters Chia Min Ping,10, and Min Yi,7, attended the same Bukit Timah PAP Community Foundation kindergarten, but had very different experiences and, their mum says, dramatically different outcomes.

Min Ping's kindergarten years

English, maths and mother-tongue were taught separately as in all PAP Community Foundation kindergartens. Teacher stood in front of the class, giving instructions. There were plenty of worksheets, and lots of homework, especially spelling. Children were praised for keeping quiet and turning in neat work.

The result

Min Ping wasn't enthusiastic about school, and feared going if she didn't finish her homework. "Min Ping was very outspoken before pre-school but she gradually toned down and became less curious and talkative," said her mum, housewife Sherlyn Chia, 46, a former teacher. Min Ping is now in Primary 4.

Min Yi's kindergarten years

English, Maths and mother-tongue lessons were taught through activity, play, experimentation and discovery, in a pilot study for the new programme. Min Yi took her pet turtle and toys to school to show and tell her friends about them. Kids were encouraged to interact and ask questions. Worksheets were combined with activities, such as using rice to form letters. Teachers were not big on neatness.

The result

She enjoyed school. "Min Yi is a very confident girl and not afraid to speak to adults. She is relaxed about school and uninhibited about asking when she does not understand something," says her mum. Min Yi is now in Primary 1.

Art: TIEN CHUNG PING Text: JANE NG Photo: ENRIQUE SORIANO

APPENDIX B

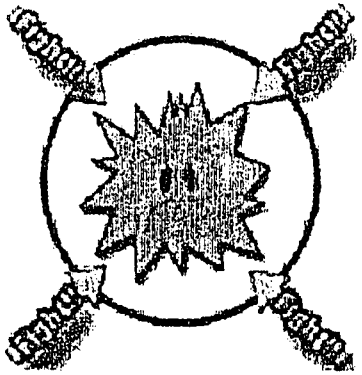
SARS Safety Precautions

What the government is doing

- Separate all SARS patients and persons believed to have SARS from others.
- Check people coming into Singapore from areas with many SARS cases for signs of the illness.

Contain

4 Lines of Defence

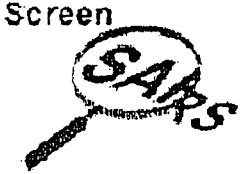


in fighting SARS.

What the schools are doing

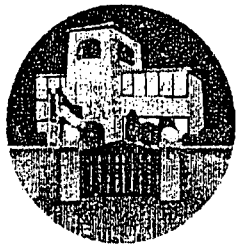
- Check the health of everyone in school every day.
- Make sure anyone who has been to areas with SARS cases stays home for 10 days after their return.
- Help pupils who have to stay home with their studies.

Screen



- Check the temperature of pupils who have travelled to other countries for 10 days after their return.
- Continue to keep schools clean and safe.

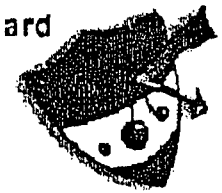
Isolate



What the government will do if there are new SARS cases in school

- Act quickly to separate any new SARS cases from others in school.

Safeguard



What pupils and parents can do

- Make sure that you are well before coming to school.
- Tell your parents and teacher if you are not feeling well. See a doctor. Stay home and rest.
- Tell your teacher if you have just visited other countries.
- Have proper meals, get enough sleep and exercise regularly.
- Practise good personal hygiene.

Let's find out more about SARS...

1 What is SARS?

- SARS is the short form for **S**evere **A**cute **R**espiratory **S**yndrome.
- It is an illness caused by a virus. This illness affects the lungs.

2 How do you know if someone has SARS?

- The person may have any of the following symptoms:
  - have a high fever of more than 38°C
  - have a dry cough
  - feel cold
  - have muscle aches
  - have difficulty breathing
- However, not everyone who has these symptoms has SARS.

3 How can a person get SARS?

- From what doctors know now, the virus can be spread through direct contact with droplets released from the nose and mouth of a SARS-infected person when he sneezes or coughs.
- This may happen through close contact with a person who has SARS.

This information sheet belongs to

(Name)

(Class)

(School)

To stay healthy,

✓ Wash my hands with soap and water regularly.

✓ Keep my hands away from my face.

✓ Cover my mouth and nose with tissue paper when I cough or sneeze.

✓ Tell my parents or teachers if I am feeling sick.

✓ Have healthy meals, get enough sleep and exercise regularly.

✓ Do not go to areas where they are many people with SARS. Tell my teacher if I have been to these areas.

✓ Do not share food, drinks and personal items.

Let's find out more about SARS...

4 Why were schools closed?

- Schools were closed because parents were worried that their children could get SARS in schools.

5 Why is it safe to go back to school?

- Steps have been taken to prevent the spread of the illness.
- Pupils and parents now know more about SARS and how to stay healthy.
- Schools will follow a set of safety measures that they can take quickly if they have to.

For more information on SARS, you can call the Ministry of Health hotline:1800-2254122 or visit the following websites:
Ministry of Health – www.moh.gov.sg
Ministry of Education -- www.moe.gov.sg/sars
World Health Organisation – www.who.int
If you have any questions, you can send an e-mail to contact@moe.edu.sg.

MOE/Pri/16 Apr 03

APPENDIX C

PPT 1 and PPT 2


ty

APPENDIX D

CPT 1


teachers
have class

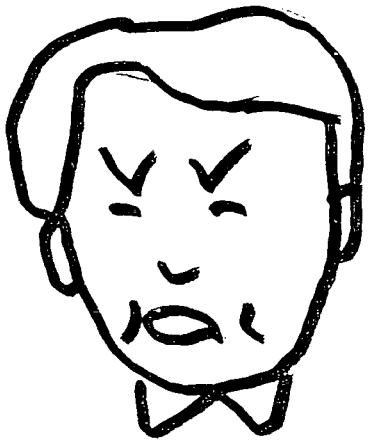
APPENDIX E

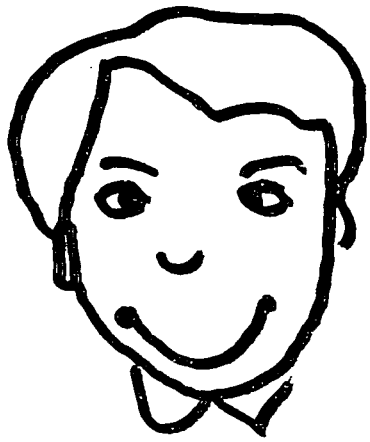
CPT 2: Boy Chased by Angry Dog Story

(1)
(2)
(3)
(4)
(5)
(6)
(7)

APPENDIX F

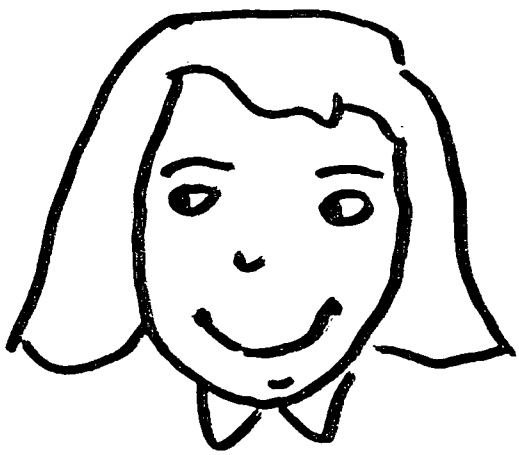
APT Facial Cues for Boys

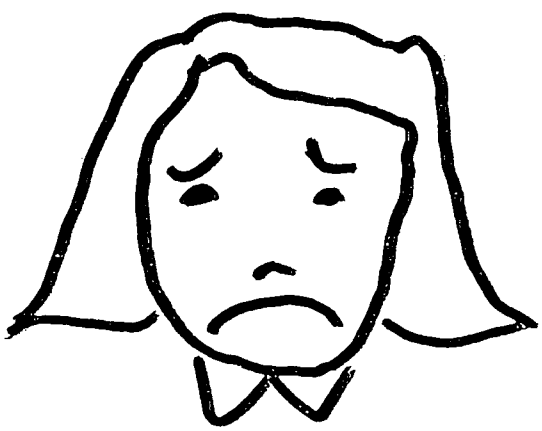


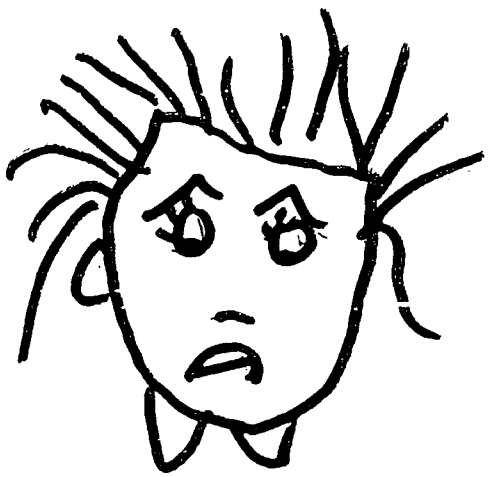


APPENDIX G

APT Facial Cues for Girls







APPENDIX H

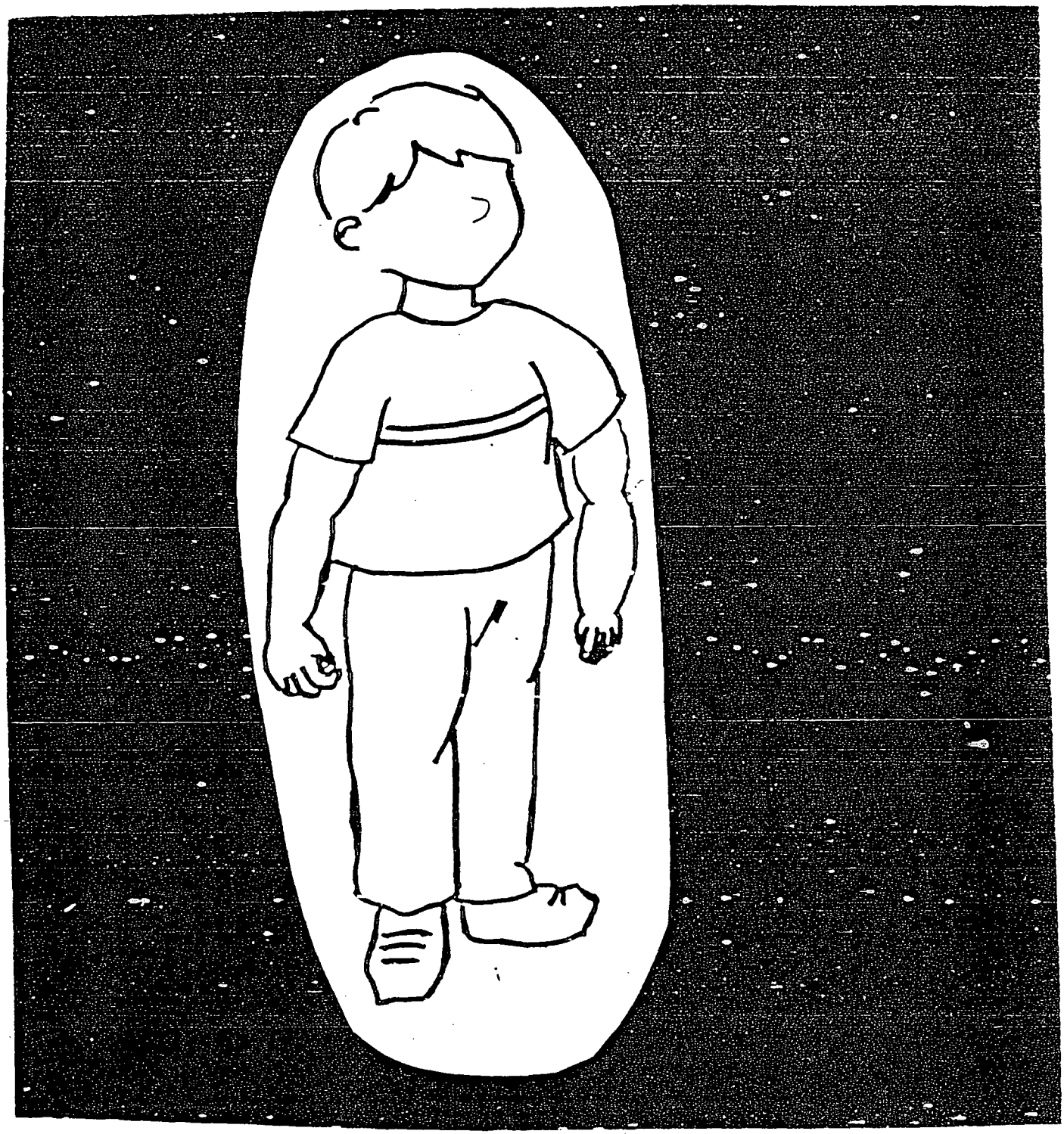
Verbal Cues

1. This boy/ girl is alone in a dark room. How does he/ she feel? Happy, sad, angry or scared?
2. This boy/ girl is playing 'ghost" with his/ her friends. How does he/ she feel? Happy, sad, angry or scared?
3. This boy/ girl took away his/ her friend's blocks. How does his/ her friend feel? Happy, sad, angry or scared?
4. This boy/ girl has been given a present. How does he/ she feel? Happy, sad, angry or scared?
5. This boy/ girl pushed his/ her friend and he/ she fell. How does his/ her friend feel? Happy, sad, angry or scared?
6. This boy/ girl gave his/ her friend some sweets. How does his/ her friend feel? Happy, sad, angry or scared?

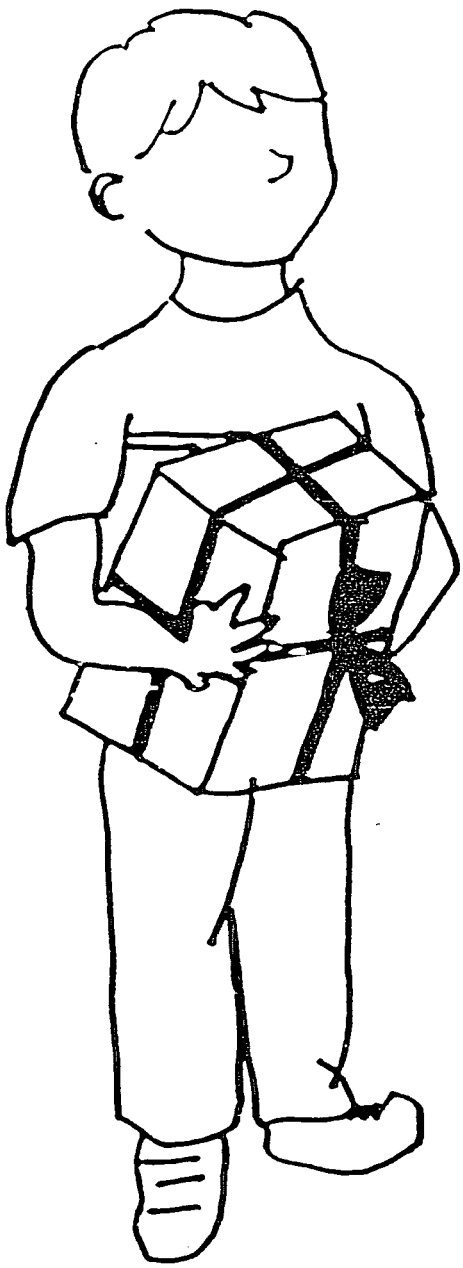
N.B. This task is available in two sets. One for male subjects and the other for female subjects.

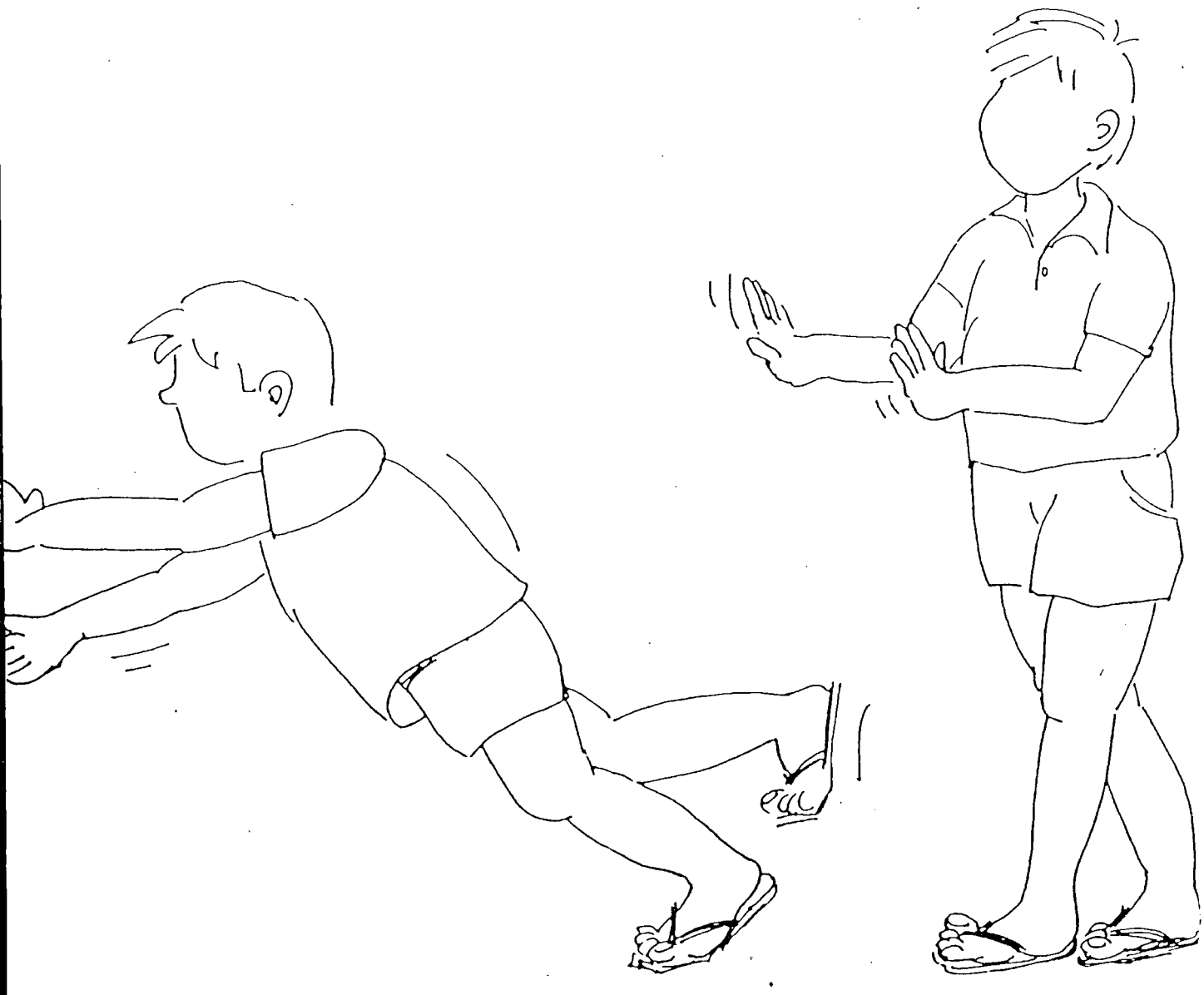
APPENDIX I

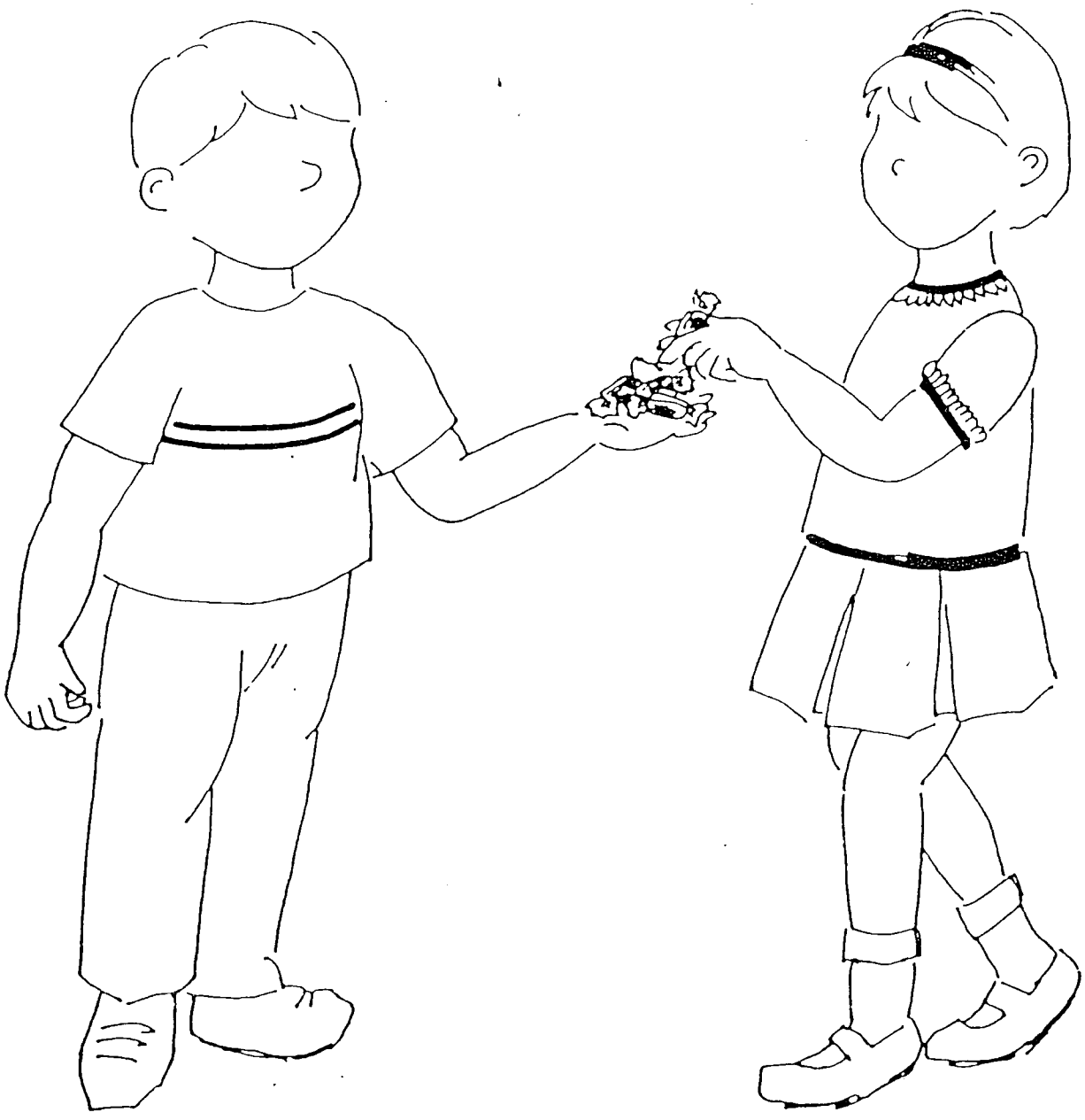
Situational Cues




BLOCKS







APPENDIX J

Raw Data

	Experimental Group N= 14		Mean Age= 4.86				
	Name	**Sex**	**DOB (1998)**	**Age as at May 2003**			
1	Jared Ang	M	8-Jun	4 YRS 11 MTHS	4.92	4.86	0.042426
2	Han Jia Bin	M	4-Oct	4 YRS 7 MTHS	4.58		0.19799
3	Lee Jia Hui	F	1-Jul	4 YRS 10 MTHS	4.83		0.021213
4	Nadia Rujouk	F	5-Aug	4 YRS 9MTHS	4.75		0.077782
5	Many Ho	F	4-Apr	5 YRS 1 MTH	5.08		0.155563
6	Jana Kang	F	10-May	5 YRS	5.00		0.098995
7	Christina Tan	F	26-Aug	4 YRS 9 MTHS	4.75		0.077782
8	Max Heng	M	30-Oct	4 YRS 7 MTHS	4.58		0.19799
9	Jolene Lin	F	3-Jul	4 YRS 10 MTHS	4.83		0.021213
10	Audrey Pan	F	11-Oct	4 YRS 7 MTHS	4.58		0.19799
11	Gavin Teo	M	15-Mar	5 YRS 2 MTHS	5.17		0.219203
12	Poh SiYu	M	18-Apr	5 YRS 1 MTH	5.08		0.155563
13	Kaitlyn Su	F	1-Feb	5 YRS 3 MTHS	5.25		0.275772
14	Caroline Tham	F	20-Sep	4 YRS 8 MTHS	4.67		0.13435

	Control Group N= 14		Mean Age=4.88		4.88		
	Name	**Sex**	**DOB (1998)**	**Age as at May 2003**			
1	Maxine Tan	F	29-Jan	5 YRS 4 MTHS	5.33	4.88	0.33234
2	Ian Heng	M	10-Jun	4 YRS 11 MTHS	4.92		0.042426
3	Ivan Kang	M	30-Oct	4 YRS 7 MTHS	4.58		0.19799
4	Jason Tan	M	18-Oct	4 YRS 7 MTHS	4.58		0.19799
5	Christopher Lee	M	27-Mar	5 YRS 2 MTHS	5.17		0.219203
6	Sammuel Ho	M	4-Jun	4 YRS 11 MTHS	4.92		0.042426
7	Krystal Poh	F	10-Mar	5 YRS 2 MTHS	5.17		0.219203
8	Leon Tan	M	16-Apr	5 YRS 1 MTH	5.08		0.155563
9	Lee YuEn	F	28-Dec	4 YRS 5 MTHS	4.42		0.311127
10	Koh LiHui	F	5-Aug	4 YRS 9 MTHS	4.75		0.077782
11	Chan Lai Fun	F	25-Jun	4 YRS 11 MTHS	4.92		0.042426
12	Daniel Yim	M	1-Feb	5 YRS 3 MTHS	5.25		0.275772
13	Natasha Fang	F	28-Sep	4 YRS 8 MTHS	4.67		0.13435
14	Keith Ng	M	6-Oct	4 YRS 7 MTHS	4.58		0.19799

Appendix: Scores of Individual Perspective- taking Tasks

	Pretest	Posttest
Experimental group:		
PPT 1	39	56
PPT 2	36	56
CPT 1	42	56
CPT 2	0	22
APT	51	84
Total	168	274
Control Group:		
PPT 1	39	56
PPT 2	36	42
CPT 1	42	35
CPT 2	0	0
APT	51	65
Total	168	198

Legend:

CPT 1- Cognitive perspective- taking task 1

CPT 2- Cognitive perspective- taking task 2

PPT 1- Perceptual perspective- taking task 1

PPT 2- Perceptual perspective- taking task 2

AFT- Affective perspective- taking task

pretest

ppt1 (4)	ppt2 (4)	ppt(total)	cpt1 (4)	cpt2 (2)	cpt(total)	apt (6)	pta (total)
3	2	5	3	0	3	4	12
2	3	5	3	0	3	4	12
3	3	6	3	0	3	3	12
3	2	5	3	0	3	4	12
3	3	6	3	0	3	4	13
3	2	5	3	0	3	4	12
3	3	6	3	0	3	4	13
2	3	5	3	0	3	4	12
2	3	5	3	0	3	3	11
3	2	5	3	0	3	4	12
3	3	6	3	0	3	3	12
3	2	5	3	0	3	3	11
3	3	6	3	0	3	3	12
3	2	5	3	0	3	4	12

pretest

ppt1 (4)	ppt2 (4)	ppt (total)	cpt1 (4)	cpt2 (2)	cpt (total)	apt (6)	pta (total)
3	2	5	3	0	3	4	12
2	3	5	3	0	3	4	12
3	3	6	3	0	3	3	12
3	2	5	3	0	3	4	12
3	3	6	3	0	3	4	13
3	2	5	3	0	3	4	12
3	3	6	3	0	3	4	13
2	3	5	3	0	3	4	12
2	3	5	3	0	3	3	11
3	2	5	3	0	3	4	12
3	3	6	3	0	3	3	12
3	2	5	3	0	3	3	11
3	3	6	3	0	3	3	12
3	2	5	3	0	3	4	12

posttest

ppt1 (4)	ppt2 (4)	ppt(total)	cpt1 (4)	cpt2 (2)	cpt (total)	apt (6)	pta (total)
4	4	8	4	1	5	6	19
4	4	8	4	2	6	6	20
4	4	8	4	1	5	6	19
4	4	8	4	2	6	6	20
4	4	8	4	2	6	6	20
4	4	8	4	2	6	6	20
4	4	8	4	2	6	6	20
4	4	8	4	1	5	6	19
4	4	8	4	1	5	6	19
4	4	8	4	2	6	6	20
4	4	8	4	1	5	6	19
4	4	8	4	2	6	6	20
4	4	8	4	1	5	6	19
4	4	8	4	2	6	6	20

posttest

ppt1 (4)	ppt2 (4)	ppt (total)	cpt1 (4)	cpt2 (2)	cpt (total)	apt (6)	pta (total)
4	3	7	2	0	2	5	14
4	3	7	2	0	2	5	14
4	3	7	3	0	3	5	15
4	3	7	2	0	2	4	13
4	3	7	2	0	2	5	14
4	3	7	4	0	4	4	15
4	3	7	2	0	2	5	14
4	3	7	2	0	2	5	14
4	3	7	4	0	4	4	15
4	3	7	2	0	2	5	14
4	3	7	3	0	3	4	14
4	3	7	2	0	2	4	13
4	3	7	2	0	2	5	14
4	3	7	3	0	3	5	15

Independent variable= fantasy play treatment

Dependent variable= posttest scores

Covariate= pretest scores controlled during the analysis

PTA Total

	gp	df	mean	SD	SS	MS
within						
	Exp pre	13	12	0.55	3.93	
	Exp post	13	19.57	0.51	3.38	
		26			7.31	0.28

	gp	df	adjusted mean	SD	SS	MS
between						
	Exp pre	1	15.79	0.53	226.81	
	Exp post				225.61	

$15.79(3.79)^2 + 15.79(\quad)^2$ 452.42

$226.81 + 225.61$ 0.28

0.1×10^3 ⇒ 16 15.79

PPT

Within

SP	df	mean	SD	SS	MS
Exp pre	13	5.36	0.5	3.25	
Exp post	13	8	0	0	
	26			3.25	0.125

	df	adjusted mean	≡	SS
				11.64
Exp pre	1	6.68		11.64
Exp post				23.28 / 2 = 23.28

$6.68(\quad)^2 + 6.68(\quad)$

$$= \frac{\text{Between}}{\text{within}} = \frac{23.28}{0.125} = 186.24$$

CT

Within	SP	df	mean	SP	SS	MS
	Exp pre	13	3	0	0	
	Exp post	13	5.57	0.51	3.38	
		26			3.38	0.13

Betw	SP	df	adjusted mean	SS	MS
	Exp pre	1	4.29	7.14	
	Exp post			7.03	
		1		14.17	14.17

$4.29(\quad)^2 + 4.29(\quad)^2$

$F = \frac{\text{Betw}}{\text{within}} = 109$ ✓ $\quad p < 0.25 \times 10^{-2}$

APT

within SP	df	mean	SD	SS	MS
Exp pre	13	3.64	0.5	3.25	
Exp post	13	6	0	0	
	26			3.25	0.12

		df	adjusted mean	SS	MS
Bet^{W}	Exp pre	1	4.82	6.71	
	Exp post			6.71	
		1		13.42	13.42

$$4.82(\quad)^2 + 4.82(\quad)^2$$

$$= \frac{Bet^{W}}{within} = 103.38$$