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A STUDY OF STRUCTURED AND UNSTRUCTURED GROUP TECHNIQUES UTILIZING PLAY MEDIA WITH AGGRESSIVE PRESCHOOL CHILDREN

The Ohio State University

Ph.D. 1981

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A STUDY OF STRUCTURED AND UNSTRUCTURED
GROUP TECHNIQUES UTILIZING PLAY MEDIA WITH
AGGRESSIVE PRESCHOOL CHILDREN

DISSERTATION

Presented in Partial Fulfillment of the Requirements for
the Degree Doctor of Philosophy in the Graduate
School of The Ohio State University

By

Chinyere Ada Okoro, B.A., M.A.

* * * * * *

The Ohio State University
1981

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Finally, this volume is lovingly dedicated to Chinwe and...
Nwamaka, who perhaps never really understood the reasons for the extensive time and demand of this investigation, but contributed immensely because they wanted to help their Mommy.
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CHAPTER I

INTRODUCTION

The specific influence of play on cognitive and emotional development is still a major unresolved question facing education and developmental psychology as indicated by the increasing references to this relationship in the literature in the past few years. It is a widely accepted view that play is a necessary activity for many types of learning. Many theories and research have been offered to prove this belief.

Arnaud (1974) suggests that play integrates cognitive, emotional and social elements in children's thinking and behavior enables them to understand and integrate experiences and aspects of their own behaviors. She asserts that young children can be helped in accepting the arbitrariness of the symbols in our alphabets and the numerals if, in their play, they have learned the convenience of using one object to represent another.

Kamii (1973) describes the importance of play in the context of establishing activities directed toward aiding in the development of the child's representational ability. She noted that pre-symbolic and non-symbolic interactions between the child and his or her environment provide basis for symbolic functioning, and that rote teaching of "symbols" (verbal
or non-verbal) is fruitless and detrimental. She added that the teacher should encourage and sometimes explicitly introduce activities such as (1) gestural imitation and use of objects ("Show me what do you do with this." e.g., a spoon); (2) exposure to the symbolic use of objects in games; (3) the use of blocks (4) and recognition of and making of pictures.

Franklin (1973) says that cognition cannot be separated from emotional and social aspects of development. She proposes that the tendency to be able to establish a world of stable objects are rooted in affective as well as cognitive domains. She concludes that the motivation to symbolize and what is being symbolized cannot be completely understood without reference to the psychodynamic aspects of development.

The influence of the psychodynamic dimension of children's play behavior has been examined by researchers. Phillips (1950) maintains that games become cathartic and compensatory behavior and become an emotional outlet for the child's anxiety.

Angelino and Jackson (1974) share Phillips' belief in the cathartic value of play. They believe that children pass from passive experience to the active part as they pass on their disagreeable experiences to one of their playmates or toys, thereby relieving themselves of experiences which have overwhelmed them in the past. Children gain sense of mastery this way. Erikson (1969) shares this belief and describes play as an anxiety-free experience which can break down when the child's anxiety is overpowering.
In discussing the importance of role enactment in play, Curry and Angelino (1974) state that the young child may disguise himself and release his emotions in an effective role such as crashing two cars together or displaying aggression in an acceptable guise, such as taking on the role of the policeman who arrests a criminal.

Play has also been described in terms of social participation involved in it. Patern and Newhall (1933) identified six degrees of social participation in children's play from two to five years of age. These are, unoccupied behavior, solitary play, unlooker behavior, parallel play, associative play, and cooperative or organized supplementary play. They investigated the relationship between age and social participation in young children. The 42 subjects ranged in age from two to five years old. They found that younger children engaged more in solitary and parallel play and that older children were never classified as unoccupied, rarely designated as solitary or unlooker, but participated more in cooperative play, a highly organized group activity according to their classification.

Smilansky (1968) refers to this highly organized play as sociodramatic play. Discussing the effects of sociodramatic play on disadvantaged preschool children, she hypothesized that sociodramatic play can be used to enhance school achievement in at least one of 15 different ways. She noted that sociodramatic play contributes to creativity, intellectual
growth and the development of social skills.

The contribution of Piaget's (1963) theory of intellectual development was a major factor in the new thrust toward emphasizing cognitive development in early childhood programs. Piaget (1951) and Isaacs (1933) describe four general stages of play. These are functional play, constructive play, dramatic or symbolic play, and games with rules. Smilansky (1968) asserts that special opportunities for cognitive development are provided by dramatic play. Piaget (1952) also added that social collaboration in cooperative play enhances the development of logical thought. He believes that preschool children have difficulty in conceiving a point of view different from their own, but interaction with peers in play confronts them with the necessity of accommodating themselves to their ideas. In doing so, children mature, and their ability to bring rational consideration to bear on how they express their feelings also increases.

For some children, the play world described by the experts is far from reality. These children have not developed the cognitive skills that will enable them to participate in their play world. These non-productive players have limited impulse control which must be changed to levels of expressive control (Wolfgang, 1977).

Strom (1975) advances the belief that when a person has no ability to combine his scattered experiences, analytic thinking and self examination, then his or her own mental
health and the well-being of others he or she can influence are all in jeopardy. He contends that playing with peers encourages getting along with others, and learning to share skills that will be required in the school situation.

Krown (1974) describes the play characteristic of the non player as (1) aimless, lethargic and impulsive. (2) difficult to arouse or entertain. (3) showing interest in play but play is repetitive and stereotyped. (4) afraid of exploring new tasks. (5) unable to label objects. (6) drifting disinterestedly from one play material to another rather than being constructive. (7) always clinging and unable to accept physical comfort. (8) lacking order, system, and clarity to objects or events in their lives. (9) perceiving the world in a foggy manner.

These deficits occur in cognitive and affective areas and include a strong inhibition of play activity. The child tends to remain tense and rigid, and incapable of touching any toy in the play room, or if he or she touches the toys, he or she is unable to do anything with them (Jackson and Todd, 1950). These deficits are also characterized by the absence of constructiveness and the frequent presence of opposite impulses, sometimes to destroy and immaturity in play.

According to Krown (1974), in marked contrast to the non productive child, the productive child reflects the following: (1) high spirit, positive and assertive, (2) not afraid to make contacts with teachers and other children, (3) has
initial fears and misgivings, but is always willing to try new ideas, (4) initiates much of his or her own play, (5) asks questions, relates experiences and suggests new ideas, (6) highly imaginative and looks for "why" and "how" of occurrence, (7) able to classify things into groups, (8) displays positive affect, interest and enjoyment.

Even though experts in the field are suggesting that play can enhance cognitive emotional and social development, the vexing problem for educators is the increasing numbers of young children who fail to profit from the educational process. This dilemma has prompted researchers to investigate the non-playful practices that could serve equally well in furthering acquisition of skills.

Some investigators have approached this problem by providing play tutoring and stimulant drugs to these children. (Papalia and Olds, 1975.) Competence gains in Rosen's study may have been due to adult contact in tutoring rather than the play alone. Since experts suggest that patterns of behavior that encourage successful participation of children in play is necessary for engaging in the mastery of the preschool world, play tutoring, which is an adult based program may not provide non-productive children with the necessary play skills they lack.

Consequently, if cooperative play in children enhances the development of logical thought, perhaps the development of fantasy in children's play should be encouraged rather
than medicating them with drugs. Stimulant drugs apparently help the children to focus attention on the task at hand and thus concentrate better. The drugs do not help children to do better in school, however, and even when they do appear to bring about improvement, it is important to consider the long-term effect of giving drugs to non-medical problems. If these aggressive children are basically normal children, as many observers believe, there is still the effect of masking their true personality. Because this and similar unanswered questions about administration of stimulation drugs to aggressive children, it would appear necessary to seek a body of knowledge to understand and a methodology to act upon the problems experienced by aggressive, non-players. To do less would be to become increasingly irrelevant as professionals and to reinforce those phenomena which are destructive to aggressive nonproductive children. If the elements of successful play and successful participation in school are similar, it is within the context of group play that seem most productive an intervention program with aggressive nonproductive children.

Faust (1968) presented two arguments in support of group process with children. The first is economy. The second is based on the belief that what children learn is often learned in groups and that novel learning or unlearning might best be effected in those groups.

It is believed that the use of groups enhances the learning process of the child by aiding him or her to redirect
mistaken goals. Keats (1974) cites Carkhoff as stating that the core of functioning or dysfunctioning and the core of the helping process, both learning or unlearning, are interpersonal. He supports group process as the best mode of affecting difficulties in interpersonal functioning. From this point of view group techniques employed in this study can be viewed as a learning laboratory in which a child is provided the opportunity to try out in play situations some of the skills he is using inappropriately in real-life situations.

A number of studies, many of which will be reviewed later in this study, have investigated the effects of play tutoring and play interventions on children's behavior. These studies have influenced a new aura of respectability now being afforded the area of play intervention as a means of influencing children's behavior.

It is with the same interest that this study focuses on the effects of structured and unstructured group techniques utilizing play media with aggressive, nonproductive preschool children. More specifically, the study examines what effects, if any, the implementation of group techniques have on selected aspects of play and the aggressiveness of preschool children. If a child's cognitive development is delayed for some reason relating to "poor" emotional/social development and if a treatment involving play group techniques would enhance the positive growth of these emotional concerns, the resultant positive cognitive growth might also be expected.
Statement of the Problem

It was the purpose of this study to compare the effectiveness of two group techniques utilizing play media upon the play and aggressive behavior of preschool children.

Specifically, the study sought to answer the following questions:

1. Are there significant differences between treatment groups in social relationship measure on post-test teacher ratings using the Behavioral Assessment Checklist?

2. Are there significant differences between treatment groups in impulse control measure on post-test teacher ratings using the Behavioral Assessment Checklist?

3. Are there significant differences between treatment groups in play ability measure on post-test teacher ratings using as a measure the Behavioral Assessment Checklist?

4. Are there significant differences between treatment groups in critical times measure on post-test teacher ratings using the Behavioral Assessment Checklist?

5. Are there significant differences between treatment groups in aggressiveness measure on post-test teacher ratings using the Behavioral Assessment Checklist?

6. Are there any differences due to sex on any of the four dimensions of play behavior as measured by the post-test teacher ratings using the Behavioral Assessment Checklist?

7. Are there any differences due to age on any of the four dimensions of play behavior as measured by the post-test teacher ratings using the Behavioral Assessment Checklist?

8. Are there any differences due to race on any of the four dimensions of play as measured by the post-test teacher ratings using the Behavioral Assessment Checklist?

9. Are there any differences due to sex, age and race on aggressiveness as measured by post-test teacher ratings using the Aggression Scale?
Importance of the Study

The study was designed to determine and compare the effectiveness of two group techniques utilizing play media upon the play and aggressive behavior of preschool children. The significance of this study lies in the fact that the effectiveness of structured group techniques and unstructured group techniques utilizing play media upon social relationship, impulse control, play ability, critical times and aggressiveness of preschool children is explored.

The modificability of fantasy play behavior for non players has been demonstrated by a number of investigators. One of the pioneer efforts in this area was demonstrated by Smilansky (1968). She drew attention to the view that sociodramatic play contributes to creativity, intellectual growth and the development of social skills. She also put forward the view that disadvantaged children display lower levels of sociodramatic play and suggested the importance of play tutoring to enhance more complex spontaneous play ability in young children. Her investigation also revealed that some children never reach high levels of social symbolic play and that these children are later unable to "play the game" of life, which for the preschool child is that of formal learning.

Saltz and Johnson (1977) attempted to determine whether training disadvantaged preschoolers in "thermatic fantasy play" would enhance their functioning on a number of cognitive
tasks. The results showed significant effects on intelligence, sequential memory and empathy compared with appropriate control groups.

Experiments have been reported in which training children on dimensions of sociodramatic play affected cognitive functioning. Feitlson and Ross (1973) reported increase in originality as measured by one of the Torrence tests; Freyberg (1973) found an increase in verbal communication; Rosen (1974) reported an increase in performance in problem solving tasks. Smith and Dodsworth, (1978) Dansky, (1976) Marshall and Hahn, (1967) all have confirmed that play tutoring - intervention by adults to enhance fantasy and sociodramatic play results in more of such plays after intervention.

The basic intervention methods used in these studies are similar. They involve the adult modeling of fantasy and sociodramatic play behaviors and adult participatory intervention into imaginative play behavior. A critical analysis of these studies reveals that competence gains may have been due to the adult contact in tutoring rather than to the play skills per se.

However, one basic assumption seems to underline these methods, the assumption that some children are unable to engage in fantasy play and sociodramatic play because they lack the play skills associated with these forms of play. On the other hand, these studies differ from one another by several characteristics. (1) Insufficient control
for the tutoring experience used; that is, positive gains may have been due to the adult contact in tutoring rather than the play per se; (2) Duration of treatment and the distribution of treatment sessions over time; (3) Sex, age, race, and the cultural background of the subjects; (4) Training of adult facilitators and the number of facilitators involved in the sessions; (5) Physical facilities of the play setting; (6) Type of toys used; (7) Dependent variables being examined; (8) Number of groups; (9) The facilitators' knowledge of group work with young children. If this critical supposition is correct, then it would be expected that these substantial differences preclude any kind of comparison among the results of these studies. However, collectively, the results suggest strongly the relative ease with which different aspects of childrens' play may be improved if the group receiving skill training and those not receiving treatment were reasonably equated for the amount of adult interaction involved in training.

Since these disparities do exist and since authorities do suggest the distinct possibilities for cognitive and social development through play, it would be advantageous to describe the play of aggressive, non playful children especially where an attempt would be made to change the perceptions of these children to enable them to develop more mature behavior of dealing with the limits imposed on their impulsive expression of needs. According to Wolfgang, (1977)
these children seem to be perceiving their world as hostile to them and their needs. Related to this view is the assumption that their hostile perception must be changed to pleasurable ones, through sensory play experience with mirror and fluid media under the guidance of an adult who is experienced in group process with children. It is assumed that non players achieve impressive impulse control before they can engage in symbolic play which requires that impulsive responses be withheld and that make-believe and pretend modes be temporarily employed in play. Hence, the child who cannot inhibit impulsive responses would not be able to engage in symbolic play. It is obvious that there is an urgent need for play media that would actually activate non-players via the guidance of a leader through mirror and fluid activities. These activities would convey to the child that there is an enjoyable and play world for him and that the adult leader is there to keep him safe from the embarrassment that he might bring upon himself through his impulsive behaviors and from the emotional flooding that may result when his impulse control is insufficient to deal with the play situation.

The play media employed in this study exposed the non player to sensory qualities and experiments with their physical properties without making a lot of inappropriate messes and without being overwhelmed by the level of sensory stimulation. It is only when the play media become
a pleasurable activity is productive play eminent. Pleasure derived from the play media may vary among children, and the leader's judgment is critical in determining the child's readiness for productive play.

It is the purpose of this study to test two alternatives with respect to measures of competence similar to those used in some of the studies mentioned earlier.

Assumptions underlying the group techniques employed in this study have their roots in a recent play facilitation model proposed by Wolfgang (1977). This model differs from earlier models with regard to its assumptions. It is assumed that non playful children are not capable of engaging in an age appropriate level of play and therefore, are not being productive in a group setting. This is due to lack of cognitive play skills and also due to a developmental lag in impulse control. The inability of the impulse control to achieve the appropriate levels of expressive control results in a severe discontinuity in the process of separated individualization. Mahler (1968). This discontinuity is attributed to the foggy manner in which the non player perceives his world, a world full of physical and social limits that are hostile to his wishes and needs. His responses are then limited to a less mature level of impulse control marked by withdrawal, hostility, physical and verbal aggression.

These children must be helped to acquire the necessary play skills before they can be expected to develop more
mature modes of coping with the limits imposed on their impulsive expressions. For these children, hostile perceptions must be changed to pleasurable ones through sensory play experiences. The purpose of the Wolfgang model then is to minimize the behavioral differences between the non productive child to acquire play skills that characterize those of the productive child. From a theoretical point of view, the objective of this model is to maximize the child's functional level of impulse control and bring him to the level of expressive impulse control.

Most methods in affecting change in aggressive children in group settings are recorded in the literature and most of them seem to be couched in either behavioral, perceptual, developmental, existential, humanistic client-centered or T-group approaches. If behavior is too complex to be assembled under one or two "manufacturers," then the theories mentioned above should be expanded to make group process more pertinent and effective. There is need for the investigation of group technique which offers possibility of alleviating many of the problems which nullify or retard the cognitive and social functioning of the non player. The structured group technique employed in this study expands the Wolfgang model and represents an orientation that includes several philosophical and theoretical formulations as a working unit and can be viewed as a frame work for affecting change in aggressive preschool children.
Since young children are limited in their use of language, it is the integration of these theories that will help in formulating a climate of a group and promote change in the children. The media of toys and fluids support the process and enter the process at appropriate points. The structured group technique utilizing play media is an attempt to symbolize a synthesis of theory and practice. The process stresses self concept change using cognitive affective-activity approach. The non player is given opportunity to experience direct results of his behavior. Immediate feedback provides him with some guidelines for more productive behavior. It also provides the opportunity to acquire play skills, change or modify behavior while gaining some understanding of the behavior of other children.

Definition of Terms

The following definitions are offered for terms used throughout the study.

1) **An Aggressive Child** - A subject who scored lower on the Behavioral Assessment Checklist and scored higher than the median score on the Aggression Scale, thereby showing nonproductive play behavior.

2) **Group Techniques** - In this study, a time period of forty-five minutes, twice a week, during which the children in the treatment groups were taken from the classroom to a separate room where they were encouraged to play with the materials provided.
3) **Miniature-Life Toys** - In this study, small toys which are representative of the child's environment, such as boy and girl dolls, trucks, cars, airplanes, soldiers, and furniture.

4) **Preschool Program** - In this study, a preschool program is defined as a set or organized educational experiences intended for children attending pre-kindergarten and kindergarten.

5) **Structured Group Technique** - Structured techniques in this study involved the introduction of Wolfgang's play facilitations model. With fluid materials, the child learns to explore sensory qualities without making large messes. With more structured play objects, the child learns to use make-believe language to delay a stimulus-bound or impulse-ridden response to the toys. These activities are used to stimulate discussion at the beginning of each group session.

6) **Unstructured Group Technique** - This study applied an unstructured approach to play involving non-directive, free-choice play experience including no pre-determined activities.

7) **Symbolic Play** - Play that is characterized by the substitution of an object for the object itself, such as a boy doll to represent the father or a girl doll to represent the mother.

8) **Non-Productive Play** - In this study, a child is non-productive when he demonstrates limited ability to elaborate age-appropriate forms of play.
9) **Play-Media** - In this study, play media implied the materials utilized during play.

10) **Productive Play** - In this study, a child is productive if he or she displays age-appropriate forms of play.

**Variables in the Study**

The dependent variables in the study were pre and post-test on the measures of the Behavioral Assessment Checklist and the Aggression Scale and are described by the items listed below each variable.

**SECTION I - SOCIAL RELATIONSHIPS (Items 1-9)**

1. Relates physically around times of positive affect.
2. Accepts physical comfort in times of negative affect.
3. Relates with language to express needs.
4. Engages in conversations.
5. Speaks in sentences (at least five words).
7. Accepts physical comfort in times of negative affect.
8. Relates with language to express needs. (Peers).

**SECTION II - IMPULSE CONTROL (Items 10-13)**

10. Withdraws passively when intruded upon.
11. Defends self with physical aggression.
12. Defends self with aggressive language (swearing, bathroom talk or scapegoating others).
13. Resolves peer conflict with language or social means.

SECTION III - PLAY ABILITY (Items 14-27)


15. Engages with confidence in various media fluid.

16. Engages in controlled sensory-motor activity with media, with no product.

17. Draws or paints lines and circles.

18. Names his painting or drawing products.

19. Produces five or more recognizable symbols in drawing products.

20. Produces products with peers.

21. Plays symbolically (micro) in isolation.

22. Does parallel symbolic play (micro or macro).

23. Does imitative role play.

24. Makes believe with objects.

25. Persist in SD for five minutes or more.

26. Does interact with peers.

27. Uses language to maintain play.

SECTION IV - CRITICAL TIMES (Items 28-34)

28. Can separate from parent and engage in play.

29. Enjoys eating most foods.

30. Appears relaxed at snack.

31. Accepts comfort at rest.

32. Is usually able to relax.

33. Is able to be a member of a small group for five minutes or more.
34. Reunites well with parents.

SECTION V - AGGRESSION MEASURES (Items 1-15)

1. When confronted with expectations he responds with overt, verbal refusals.

2. He often relates to teachers with verbally abusive language.

3. His interactions with other children are characterized with verbal abuse.

4. He cooperates and meets the expectations of a work situation with hostility.

5. He often destroys property, work materials and/or toys.

6. When his desires are not fulfilled, he is likely to engage in a "temper tantrum"

7. He is supportive of other children in a group situation.

8. He often directs physical aggression towards the teacher.

9. While relating to other children he is likely to initiate unjustified hitting.


11. He is frequently involved in fights with other children.

12. He responds constructively to criticism and punishment.

13. He is likely to ridicule other children.

14. He laughs or is openly amused when punishment is meted out to other children.

15. He misbehaves in a work situation to the point of necessitating teacher attention.

In addition, different scores from pre- to post-test were obtained for each dimension of the Behavior Assessment.
Checklist. The effects of four independent variables were tested on each dependent variable separately.

Limitations of the Study

This study can be described as experimental, the specific problem was limited to the investigation of the effects of structured and unstructured group techniques utilizing play media on the social relationship impulse control, play ability, critical times and aggressiveness of aggressive preschool children.

The rationale for using aggressive children as subjects for testing the effectiveness of group techniques is predicted on the assumption that the earlier intervention techniques are employed, the more likely intellectual adaptations will occur and their play behavior will be changed to characterize that of productive children.

The study was limited to sixteen preschool children identified as aggressive children from an original population of 64 preschool children attending Blue Ribbon Academy School in Columbus, Ohio.

Seven of the children have attended classes in other schools throughout Columbus during their short educational experiences. In spite of the mobility of a significant portion of the children, caution must be taken in generalizing results to the larger body because of the somewhat unique nature of the sample. However, since there was no statistical evidence on the value of group techniques
utilizing play media, it was believed that a pilot study of this type would elicit findings worthy of further investigation on a larger scale.

Summary

This study has been an attempt to describe the effects of structured and unstructured group techniques utilizing play media on measures of play and aggressive behaviors of preschool children. Since play and the development of social relationship, play ability, impulse control, critical times and aggression are areas of such important consequences in the lives of young children, preschool children have been used in this study. The age group is an ideal one to work with in terms of play intervention techniques since play is still an integral part of the lives of children at this age.

All the subjects in the study were pre-tested on the four dimensions of the Behavioral Assessment Checklist and on the Aggression Scale. From a pool of 64 children, 16 were identified as aggressive children by definition. The children were randomly assigned to either the structured group or the unstructured group. The two groups of eight children received play intervention programs for 12-45 minute sessions over a period of five weeks. Following completion of the treatment programs, all the subjects in both treatment groups were post-tested on the measures of play behavior and on the measures of aggressive behavior.
This chapter presents an introduction, statement of the problem, definition of terms, limitations and rationale for the study. Chapter II presents a review of related literature. Chapter III enters into methodology, procedures, setting, sample, instrumentations and the design of the study. Chapter IV includes the analysis of data and the findings of the study. Chapter V deals with the summary, conclusions and recommendations.
CHAPTER II

REVIEW OF THE LITERATURE

The rationale for this study has branches in three areas of theory and research. Each branch contributes to the idea that the aggressive non-productive child has been unable to be free and active in a preschool world and that play intervention techniques as a primary socialization agent may be of critical importance.

The areas reviewed in this chapter are Theories of Play, Group Play Techniques with Children, and Variables that Affect Aggressive Non-Productive Play Behavior.

Theories of Play

Over the years, a number of play theories have been proposed to try to account for the enigmatic behavior called play. Play is a multi-faceted activity that transcends all of the levels of a child's life. It has been vigorously explained according to classical, psychoanalytic, developmental and learning theories. In order to provide a better understanding of intervention techniques that could be used with aggressive preschool children, these theoretical approaches are discussed as follows.

Classical Theories

This approach is concerned with the cause and purpose of play. It is not concerned with the structure and the
characteristics of play behavior.

Gilmore (1966), for example, maintains that play is the result of a surplus of energy that is no longer needed by the young because they are freed from the necessity of self-preservation through the actions of their parents and the society. This approach may be attributed to the German poet Schiller (1875) and also was espoused by Spencer (1873). The surplus energy finds vent through an aimless, exhuberant pursuit of fun and happiness called play. Another concept of this theory is that the human being is by nature an active organizer. Much of man's activity is directed towards the mainenance of life.

The Relaxation Theory, in contrast to the Surplus Energy Theory, views play as a way of replenishing spent energy. According to Levy (1978), proponents of this theory, most notably Patrick and Lazarus, speculate that play stems from the need for relaxation. They see play as the result of man's high reliance upon small muscle activities. Play then occurs often in the child and serves to replenish the energy of the child.

Groos (1901) viewed play as a form of instinctive behavior. He contends that through play, crude instincts are practiced and refined for the struggle to survive. Children exercise the instincts in preparation for their maturation. Hall (1906) viewed play as a reliving of the past rather than as a preparation for the future. With the "Recapitulation" theory of play, Hall was the first to suggest play stages and
hypothesized that each child passes through a series of play stages, reenacting the cultural stages in the development of the races.

Gilmore (1966) pointed to Appleton's study of play in primitive cultures and his observations of children's play behavior in these cultures. He concluded that play is a response to a generalized drive for growth in an organism. The basic need for play is the desire to grow to a stage at which the instinct can operate. According to Gilmore's explanation of this theory, play facilitates the mastery of skills necessary for the functioning of adult instincts. The classical theory is concerned with the causes and effects of play rather than with the content of the play behavior. Although the classical theory of play is testable, it has generated little research.

Smilansky (1968) questioned the structural relevancy of the phylogenetic theory of play. Smilansky vividly makes a case for environmental and sociocultural input. She maintains that in her extensive observations of children at play in Israel including children from both high and low-socio-cultural backgrounds, she did not witness games played on the themes of the wandering tribes, hunters after prey, and so on. The themes chosen by the children for their games were taken from the everyday life of the adults in their immediate environment. Hence, Smilansky doubts the efficacy of such classical theories as the surplus energy theory, the
pre-exercise theory, and the recapitulation theory of play.

**Psychoanalytic Theory**

Two major concepts are central to the psychoanalytic theories. 1) the opportunity to be grown up and 2) the need to assume an active role. This theory, whether based on the deficit drive and homeostatic conception of motivation held by traditional psychoanalysts or whether based on a proactive derive theory such as that of White (1969) presents a strong motivational basis for symbolic play and hence a strong likelihood that it will occur.

Psychoanalysts emphasize the expression and control of basic biological drives as the function of and motivational basis for play. The child may express in socially acceptable ways unfulfilled wishes and resolve the conflicts centering about impulse control which are inherent in the socialization process through play. Freud considered the frequency with which children pretend to be grown up and, during the oedipal period, to take the role of the parent with whom they identify to be evidence of the wish fulfilling motives underlying dramatic play. Psychoanalysts conceive reenactment of conflicts through play as enabling the child to gain active control and mastery of fear, thereby reducing anxiety. Play enables the child to achieve emotional equilibrium, thus serving an important mental health function.

Erikson (1968) sees reduction of anxiety as important and considers the planning and coping aspect of play as
continuing to be the sense of mastery in a more positive sense. Erikson (1968) writes that play:

Often proves to be the infantile way of thinking over difficult experiences and restoring a sense of mastery, comparable to the way in which we repeat, in ruminations and in endless talk, in daydreams and in dreams during sleep, experiences which have been too much for us.

Play therapy is currently used by some psychologists (Axline, 1947; Moustakas, 1974). They suggest that it may be viewed as a set of attitudes through which children learn to express themselves fully, achieving in the process feelings of security, adequacy, and worth. It is important to make direct connections between play problems and learning problems, since it appears that many of the roots of learning problems can be detected and remedied in the play learning situation by the process of play facilitation (Wolfgang, 1974).

**Cognitive Theories**

Inherent in this theory is the assumption that play is the act of bending reality to fit one's existing level of cognitive functioning. Piaget (1963) proposed a play theory using cognitive framework. This theory of play is closely tied to his theory of intellectual growth in that he views the child as working out two important characteristics of his development and experiences. Like all aspects of mental development, play arises as a result of the activity of the two invariant functions, assimilation and accommodation. Accommodation is the modification of thinking and behavior in order to adjust to new information and assimilation. The
recognition of categorization and utilization of information in terms of previous habits, conventions and preferences are the basic processes involved as the individual attempts to comprehend and adapt to his environment. Piaget proposed that in accommodation and assimilation, the organism tries to alter and update its own memory bank in order to assimilate information. Assimilation refers to the limitation and modifications the organism imposes on reality which would make accommodation impossible within the individual's functional level. These two forces are always present, operating together, but one may predominate over the other.

If accommodation predominates over assimilation, imitation occurs. When assimilation predominates, reality is bent to fit already existing cognitive functioning. When this happens, play occurs. Piaget calls the interaction between these cognitive functioning intellectual development. When they balance each other intelligent adaptation results.

Difficulty is involved in balancing the assimilation and accommodation processes, and this forces the young child to swing from one extreme to another -- to attend excessively to reality, to alter it to fit his limited schemata, or to imitate without comprehending.

According to Piaget, symbolic play is a characteristic of mental development in a young child. In early childhood, the child is required to assimilate and accommodate not only immediate practical reality as in the sensori-motor period, but also a new area which representation lays open for him.
When understanding does not occur between assimilation and accommodation combined, the child assimilates reality to the ego without accommodating to it "symbolic play," or accommodates his activities or his representations to models without immediately assimilating them, as in imitation, and drawing. (Piaget, 1962).

Millar (1968) cites that if the assimilation of events in symbolic form is the same as symbolic play according to Piaget, that "much make-believe play belongs with all those processes and structures which underlie the coding of information and which appears to keep the human brain pretty constantly busy." She suggests that rehearsal is overt rather than covert and gives imaginative play its distinctive character coupled with the fact that the repetitions are nearly accurate. She noted that make believe play helps in the development of representational thinking as practice play helps the sensory motor period.

Cowan (1967) studied the link which Piaget has suggested between cognitive and social development. He found that children who had done well in a spatial perspective taking task performed less egocentrically in a communication game than children who had not performed well. Rosen (1974) also demonstrated that sociodramatic play does enable children to learn to decenter in social and cognitive tasks. Rosen's research will be reviewed later in the section.
Piaget attaches importance to the interaction between the child's social and physical environment. He sees this as the means by which mental structures develop. He pays little attention to the environmental influences upon behavior. He sees cognitive development as inherent in play and strongly influenced by genetic factors and therefore varies under normal environmental circumstances in human beings. He believes that the rate of development may be altered by experience. Hence, inherent in his theory is that individual and group symbolic play occurs at somewhat different ages in children with different environments. Piaget is best known for his theoretical stages of intellectual development sensorimotor, 0-2 years, preoperational, 7-11 years, and formal operational, 11 years and up. This also describes corresponding stages of play (Piaget, 1951).

Sutton-Smith (1976) emphasizes the relationship between play and creativity. He points out that during play children develop a repertoire of responses which they use in making unique responses to subsequent situations requiring adaptation. He also notes during play that children seem to be able to conserve imaginative identities before they are able to conserve in areas such as space and quantity.

For (Vygostsky, 1976) the child depends on external objects as "pivots" for his imaginative activities and he is yet capable of operating totally without them. The use of pivots, symbols in play such as a stick as a horse or an
action portraying a person riding a horse, were noted by Vygostsky as playing important roles in the transition from concrete to abstract thinking. Vygostsky cites the importance of play in the development of violation and will. The child forms plans and acts in accordance with internalized rules as thoughts become free from situational contexts. Rules are integral aspects of play activity. It is implicit within an imaginary situation at first and later, in games, becomes explicit within an implicit imaginary context. In dramatic play, acting in accordance with the implicit rules is important in developing the ability to guide one's behavior by means of internalized standards.

Smilansky (1968) views imaginative play as an organizational, integrative mode of behavior. She cites that make believe activities serve "not to fly away from the world of reality" but to fill in the gaps imposed by circumstances and to make the play situation as much like real life as possible (p. 8). She sees that direct instruction in imitation and sociodramatic play techniques is important for development of intellectual and social skills necessary for the make believe activities to occur. She considers peer interaction necessary in intellectual and social development and has concentrated her research efforts upon role play with peers, and sociodramatic play. Children who engage in imaginative play and especially in sociodramatic play are apt to draw meaningful relationships or association between disparate bits of
information, concepts or skills. Children who lack skill in sociodramatic play are considered as being incapable of integrating otherwise fragmented experiences, developing social interaction and language skills and lacking understanding of social roles and the institutions within which they operate.

Smilansky believes that sociodramatic play is necessary for understanding institutions within which a child operates. Children who have not engaged in sociodramatic play will be forced into the game of real life, both at home and at school, without understanding the underlying theme, without adequately understanding the role of others, and without fully realizing the significance of their own roles in the whole complex situation (p. 62)."

The stages of play formulated by Smilansky (1968) are in accord with those formulated by Piaget. Her play stages are labeled as (1) functional play, (2) constructive play, (3) dramatic play (4) games with rules.

**Learning Theory**

Singer (1973) provides a framework by means of which the insights of Piaget, psychoanalytic and learning theories may be brought to a focus. He views make-believe play as a cognitive skill and an aspect of divergent thinking, which can serve many functions within the personality. He shares with Piaget that make-believe play is an outgrowth of the information
process activity of the child. The tendency to manipulate objects, to explore new environments and imitation are inherent aspects of the child's environment.

Singer separates from Piaget and broadens his theory into two aspects. He believes that most children engage in imaginative activities to some extent, but there is great individual variation depending upon circumstances and learning opportunities and level of cognitive functioning. He pays more attention than Piaget does to external influence - stimuli - and possible constitutional factors that lead to broad ranges of individual differences in the extent to which children engage in imaginative activities. He sees the importance of relating the information processing capacity of the child to his emotional make up.

According to Singer, make-believe play grows out of imitation and assimilation of activities. In processing and reprocessing of information from external and internal sources, -- (memory) -- the child seeks moderate levels of increasing stimulation in order to produce interest or reducing levels of stimulation to produce a joyful experience. The child assimilates his intellectual and emotional experiences within the scope of his limited schemata during make-believe play. The play that results may be strange to the adult, but it represents to the child an interesting and novel activity. The effort to continue play is enhanced by the effort to assimilate and create new sequences and stimulus situations of
its own which evoke interest or surprise.

Materials relevant to the child's play are stored in the long-term memory and rehearsed, and there is always strong indication that these materials will be used later in play. In addition to the positive effect emphasized by Singer, he also stresses the probable relationship between imaginative play and concentration. Concentration is needed to carry out extended imaginative play.

Singer also mentioned the possible relationship between make-believe play and the development of imagery and verbal coding skills in young children. Imagery has been shown by Pavio (1970), and Rohwer (1970) to be necessary to children in verbal learning tasks. Bandura and his colleagues (Bandura, 1969) have reported the importance of imagery and a verbal coding in observational learning.

Singer feels that imagination in children's play is undoubtedly related to the emergence of creativity in the young adult. He views imagination in play as a manifestation of divergent thinking. He believes there are different types of make-believe which may be associated with different types of creative orientation and that make believe may not be related to all aspects of creativity. He suggests research that "attempts to tease out the special differences that may occur in make-believe play in other types of play between children whose associational fluidity is expressed in interpersonal and social-role type games as against those children whose associational fluidity, even make-believe, may take the form of more oriented around physical environmental objects" (p. 228)
Singer recommends that exposure to different kinds of models may determine the type of creative orientation which evolves in the child and that an attitude to be creative may be fostered initially by early emphasis upon fantasy or symbolic play.

Singer suggests that environmental circumstances may enhance the development for make-believe play. These include attachment to and identification with one adult who the child trusts and the availability of adult models or older peers who encourage and/or show the child how to engage in make-believe activity. Hence, play depends on its reinforcement by adults in the community. Based upon extensive cross-cultural research, it was found that there exists a strong relationship between children-rearing practices of various cultures and games played by the children in that society. (Levy, 1978). As for the role of peers in enhancing make-believe play, Singer notes that make-believe play may be enhanced by group play of two or three children who are interested in this type of activity. He also warns of the extent to which other children may interfere in a child's fantasy play, which may lead to total withdrawal from social contact or to lack of make-believe, both undesirable behaviors.

**Group Play Techniques with Children**

A survey of the literature on children's play reveal that researchers have approached the child's play with different points of view and with different interests. In
contrast to earlier, essentially psychoanalytic and cathartic approaches, e.g., Erikson, 1963; Freud, 1936, that were emphasized, more contemporary researchers seem to focus on cognitive development in isolation from other developmental areas.

In this chapter, an examination of the relationship of play to cognitive development is provided. Because of the scarcity of studies dealing specifically with the group play of non-productive, aggressive children, this review includes studies of the play of individual children as well as studies of sociodramatic play or group play.

The theoretical interpretations cited earlier account for many of the activities that are called play and are directly related to the development of numerous skills that children need in school. The non-universality of these skills in preschool children has caught the interest of most researchers. Krown (1974) reported of the absence of concentration in children with limited play skills. Their play behavior was described as "short-lived", sporadic", and their interest difficult to arouse.

Until recently, it has been assumed that dramatic play emerged spontaneously in preschool children of different socioeconomic and cultural backgrounds. This assumption was made based on studies with exclusively white middle class children (e.g., Piaget, 1962; Buhler, 1930). However, there is research evidence which suggests that the typical play pattern observed in children of white middle
class orientation is not universally found in children of different cultural and socioeconomic backgrounds.

Smilansky (1968) in stressing the relationship between play patterns and cognitive development made a pioneer effort to find ways of helping lower class Israeli preschool children succeed in school. She investigated the effectiveness of three intervention methods in improving the level of play in lower class three to five year-old children. She observed specific differences in both quality and quantity of symbolic play in both middle and lower class children.

She compared thirty-six nursery school children and kindergarten classes of which half were middle SES and half were lower SES. Their ages ranged from three to six years and were observed by ten field observers. The middle SES group was comprised of children of European countries and the lower SES was comprised of children of Middle East backgrounds.

Episodes of play occurring in each of five centers of interest: book corner, playground, doll corner, hospital corner and homemaking corners were recorded by ten observers. The records were analyzed in terms of play themes, roles and the utilization of toys and objects in the elaboration of a theme. The analysis revealed that lower class children used toys in manipulative or imitative ways whereas the middle class children used toys as dramatic play props. The middle class children showed more diversity and variety of roles and greater range and more depth in the relationship portrayed.
The lower class children showed no aggressive behavior and hyperactivity was common among them.

Smilansky concluded that one of the major factors contributing to the absence of sociodramatic play was the unavailability of adult models with whom the children could identify and whom they could imitate. She noted that the differences observed in children of differing socioeconomic background were not due to differences in rate of development but due to the differences in the socialization practices of their families. She added that symbolic play is dependent upon environmental circumstances, including reinforcement of imitation, parental modeling and imaginative play. According to Smilansky, the lower class parents provided a warmer emotional atmosphere that is necessary for identification and the foundation for sociodramatic play, but the parents were less effective in equipping their children with cognitive and social abilities required for such play. Further, they did not provide encouragement or training in play techniques. Smilansky's findings demonstrate that short periods of play intervention could improve the play ability of children whose play had been observed to be improvised.

The three intervention techniques compared were (1) providing knowledge and experiences relevant to play themes; (2) providing instruction in play techniques and (3) a combination of the two procedures. The provision of knowledge and experiences alone did not improve play behavior. Technique
two did not provide significant improvement; techniques two and three resulted in significant improvement; with technique three resulting in greatest gain. Smilansky asserts that direct instruction in play techniques is necessary for the development of sociodramatic play.

Improvement in sociodramatic play resulted in an increase in language skills, communication within a role, more positive affect and reduction in aggression.

However, contradictory evidence has emerged in the play differences between children of different socioeconomic status and cultural groups. Eifermann (1971) observed sociodramatic play in lower SES and middle SES Israeli children. The terms "disadvantaged" and "advantaged" had the same meaning as in Smilansky's research and children ages six to fourteen were the subjects. A group of 150 observers conducted observations of the play activities during recess of approximately fourteen thousand children.

Seven of the fourteen schools were of high socioeconomic level and the other seven were of low economic status. Socioeconomic level was based on the father's occupation, parents' education level, family size, and their years of immigration. Stages of play development were identified from the observations of these children. For the purpose of this study, only results concerning the stages of collective symbolic play are reported.
The number and relative percentages of play participants in collective symbolic play were given separately for one high SES group and one low SES group by grade level. There were no significant differences found in the participation in symbolic play between successive pairs of grades within the high SES school, whereas in the low SES school, the decline in participation from the first pair of grades, one and two, to the second pair of grades, three and four, was significant at the .01 level and from the third pair, grades five and six, to the fourth pair of grades, seven and eight, at the .05 level. It was also found that the proportion of participants in collective symbolic play in grades one and two in the low SES school was significantly greater than the high SES school. (Eifermann, 1971, p. 1)

Since there were no significant differences found between pairs of successive grades within the high SES school, these findings support Piaget's claim that by age seven and above, symbolic play has declined to a more or less relatively stable level. However, the decline in the proportion of participation in collective symbolic play from grades one and two to three and four in the low SES school and the significant difference in the extent of participation in such play in grades one and two of that school as against the high SES suggests that lower socioeconomic status children reach the peak of symbolic play at a later age than do higher socioeconomic status children. Eifermann found that 26% of the players
in grades one and two of the low SES school participated in collective symbolic play while 54% of the players in grades one and two of the high SES were involved in collective symbolic play. Eifermann (1971) says:

"culturally deprived" children not only develop the ability to engage in such play at a significantly higher rate than do their "advantaged" peers. I would tend to interpret this finding as suggesting that disadvantaged children reach the peak of their symbolic play at a later age than do other children (p. 290)

Thus, Eifermann challenges Smilansky's finding since she reached the conclusion that at the age of six or seven, culturally deprived children "readily engaged themselves in a large number of competitive games and games with rules without ever having engaged in sociodramatic play" (Smilansky, 1968, p. 59).

Although these Israeli researchers studied different age groups of children, the major difference between these two studies was that Eifermann's study was conducted in the village and in the streets, whereas Smilansky's study was conducted in an unfamiliar nursery school setting. (Wolfgang, 1977).

Eifermann's findings suggest a developmental stage in production of fantasy and sociodramatic play, rather than a lack of ability. However, since Eifermann did not observe children below first grade, it is not known if his low or SES sample would have shown little or less complex symbolic play at an earlier age.
Rosen (1974) replicated the Israeli research in the United States. The subjects were selected from four kindergarten classes serving black disadvantaged children and one middle class kindergarten. One of the black groups located in a day care center setting was of middle class orientation. Using Smilansky's observation schedule for advantaged and disadvantaged free play in school, all the advantaged children were observed to engage in some form of sociodramatic play whereas a few of the disadvantaged children were observed to engage in sociodramatic play. The major difference between the two groups was that the middle class black group demonstrated significantly more role play and sociodramatic play than the lower class black group. Rosen also provided forty hours of imaginative play training for half of the 58 disadvantaged children. This was an attempt to demonstrate that learning and practicing sociodramatic play techniques would enhance improvement in cognitive and interpersonal skills. The intervention involved asking questions, making suggestions, participating and modeling. The control group participated in group activities with toys. The analysis of nine codings of post training play behavior for each subject were rated according to the criteria for Smilansky's sociodramatic play. Training proved to be more effective in increasing the quality and quantity of sociodramatic play.

The experimental subjects showed an increase in productivity on group construction tasks, there was an increase in
role taking skills and increase in group effectiveness situations requiring cooperation. Rosen's study showed that the experimental groups improved on formal problem solving tasks and points to the need for research on play techniques that would illicit productive play behavior from these "shut off" children. (Wolfgang, 1977). The use of play in teaching problem-solving behaviors would also need to be compared with other methods.

A recent study by Smith and Dodsworth (1978) supports Eiffermann's hypothesis of a developmental lag in the play of low class children. The subjects were from four English preschools, two in Sheffield and two in London. Sixty-four children were observed at each of the four preschools. The subjects were split equally (4 X 4) between older four year-olds, and younger three year-olds between boys and girls.

The subjects were randomly selected from the register, consistent with the age and sex requirements and subjects from the SMC and LMC schools were from middle class backgrounds and the subjects from the SWC and LWC schools were from working class backgrounds, as determined by the father's occupation.

During free play conditions, each child's behavior was sampled three times, on separate occasions, for a five-minute period. The observer noted detailed occurrence of group play, aggressive behavior or interruption of play sequences, teacher interaction, and the presence and characteristics of
any fantasy play episode. The observations were made by one observer.

The middleclass children were found to engage in more episodes of fantasy play than the working class children. The working class children were more likely to show replica use of objects. Social class was a much more important factor than age or sex. Lower class children were also more likely to experience an interruption from another child in an act of aggression during a sample. However, a majority of the lower class children did show some fantasy play during the observation periods.

The authors argue that their data are in support of Eifermann's report and do not support Smilansky's generalization that disadvantaged children do not develop symbolic play. They found that middle class children made more elaborate use of objects, or use of pretend objects, in fantasy play, whereas working class children made more use of replica objects. The differences in use of objects they attributed not to the differences in materials provided but to Eifermann's developmental lag hypothesis in fantasy play of children from lower SES backgrounds.

Marshall's study (1961) dealt primarily with one aspect of sociodramatic play. She investigated the use of language in play interaction with peers. Her subjects included 108 upper middle class children from two and a half to six and a half years of age. Dramatic play language and reality
language were used in play categorization. Dramatic play was categorized as (1) imitation (2) suggestion (3) agreement (4) hostility; reality language included (1) suggestions (2) agreement and (3) hostility.

The findings of this study revealed that the frequency of dramatic play language: (a) increased with age; (b) increased as social acceptance among the group increased (c) improved as dramatic play topics and home experiences increased (d) decreased for boys and did not change for girls as dependence on teachers at the preschool level increased.

Marshall reported that the use of reality language in play: (a) was not different for boys and girls (b) hostility was used more by boys (c) did not relate to the number of interactions with other children (d) decreased as dramatic play topics and home experiences increased (e) did not change as age increased (f) did not relate to social acceptance in the group and (g) increased with the exception of hostility, as dependency on teachers at preschool level increased. Marshall noted that dramatic play language with peers is important in getting along with their age group at school.

Using a modeling technique, Marshall and Hahn (1967) hypothesized that if an adult engages in fantasy play with a child, and displays common topics related to dramatic play with other children, the child's own dramatic play with other children will increase. To test this hypothesis, the researchers provided four 15 minute sessions of doll play
training to 12 match trials of preschool children. The children were trained in (1) doll play fantasy, or (2) in use of toys, or (3) given no training. The subjects were matched by sex, age, ordinal position in the family, and length of nursery school attendance. The subjects were randomly assigned to one of the three groups. The amount of dramatic play language used by the child was used to determine the frequency of dramatic play with peers. Forty two-minute time samples of behavior during training revealed that the doll-play group increased the frequency of their dramatic play with peers and the increase did not occur for the other two groups. The dependent variable was the frequency of dramatic play before and during training. The mean of the frequency of dramatic play with languages differed at the .001 level of significance from the mean of the frequency of dramatic play language for the no training group and at the .005 level from the mean of the frequency of the toy-training group. These findings suggest that when an adult enacts topics used in dramatic play with a child, the child will increase the quality and quantity of dramatic play with other children.

Feitelson and Ross (1973) investigated the training of children in thematic play. The subjects were 24 white low middle class children. The subjects were not compared with another group because the authors based their assessment on the pre-training of play assessment in which they stated
that the children showed "surprisingly low levels of thematic play." They defined thematic play as the play in which a theme may change as play progresses. Thematic play may be carried out individually or in groups. The play intake of their kindergarten subjects were described as stereotyped and limited in production or as uninvolved and manipulation of play materials. The experiment was conducted in three phases.

The first phase was the intake period which consisted of three assessments with each subject. The purpose of the first assessment was to evaluate the child's initial level of symbolic play. A single observer monitored the behavior of each child during a forty-minute play period in the laboratory. In the second assessment, the child was given subtests from Cincinnati Autonomy Test Battery (CATB). In the third assessment, a child was given a picture completion subtest of the Torrance Thinking Creatively With Pictures Test which measured originality, flexibility and fluency.

In the second phase, children were randomly assigned to four treatment groups. Each subject in Group A received ten thirty-minute play tutoring sessions. Tutoring was employed to decrease dependence on ready-made toys and increase combinatorial play. Group B played with toys but received no tutoring. Each child in Group C received ten individual lessons in learning to play the tonelle. Group D was a classroom group and no intervention was provided for them.
Phase three was the evaluation stage and consisted of retesting on the CATB and the Torrance Thinking Creatively With Pictures subtests. Each subject was observed during a forty-minute free play period.

The subjects were rated on eleven categories of play which fall into four hierarchial classifications: pre-play class, production class, contentful play class, and combination class. As in previous studies reviewed, low level of play was the independent variable in the Feitelson and Ross study. Half of the subjects were unable to achieve combined types of play. Those who achieved higher levels of play performed these only a small percentage of the time. Test performances on the CATB showed a low level of originality. Post treatment evaluation showed that play tutoring raised the level of combinatorial play. Pre-play behavior, such as manipulation and non-play behavior decreased, whereas contentful sequential play and combination and innovative play increased. The groups receiving different kinds of treatment or no treatment changed in the opposite direction. "There was an increase in the lower levels of play... and a considerable decrease in the higher two classes of play (p. 215)." The tutored group improved on the Torrance test and on two areas of the CATB test, those that measured innovative behavioral explorative behavior. The tutored group improved more than the treatment group on the third CATB test. The authors concluded that modeling is an essential
prerequisite for the acquisition of thematic play. The subjects that merely played with toys did not improve. They noted that thematic play does not occur spontaneously in all children nor is low level play confined to lower class children.

Griffing (1974) compared the play of 169 black five and six year-old kindergarten children. Half of these children were classified as lower socioeconomic level children and half were high socioeconomic level. The children were grouped into fours and encouraged to "play house" in an experimental play setting. Significant differences were observed between the two SES groups. The high SES group scored higher than the low SES subjects on all six sociodramatic play categories derived from Smilansky's play category. It was found that high SES girls contributed most to these differences.

Freyberg's (1973) study reported in The Child's World of Make Believe (Singer, 1973) described the pre-imaginative play training behavior of eighty lower class kindergarten subjects in dramatic play techniques and investigated the relationship between improvement in play and imaginative play predisposition. The subjects were five year-olds from public kindergarten in New York City. Play material consisted of a doll house, block corner, art supplies, games and other types of equipment. Each subject was observed for six five-minute pretraining sessions in order to determine his level of play before and after treatment. Behavior was recorded on a five-point scale and measured imagination, concentration and
affect. The play of the subjects before training was marked by high degrees of aggression, over-excitement and hyperactivity. Singer's (1973) imaginative play interview was used as a means of interview with each child to measure imaginative play predisposition, the Barron Threshold Movement Inkblot Test, and teacher ratings were used as standards of measurement. In order to determine the estimate of verbal intelligence, the vocabulary subtest of the Stanford-Binet test was given to each subject.

The training sessions consisted of eight twenty-minute sessions. Groups of four children in the experiment were taken to a room equipped with unstructured materials; for example, fabrics, pipe cleaners, and wooden shapes. The play materials were placed in the table. During the sessions the researcher enacted, with appropriate voices and sounds, different play themes derived from the childrens' interests. The children were encouraged to participate and play their own way. The control group played with tinker toy structures and jigsaw puzzles.

Training in imaginative play enabled the experimental group to improve in the expression of positive affect, and the degree of concentration. The control group did not change in their play behavior. An eight week follow-up observation revealed that gains in imaginative play were maintained. High fantasy subjects improved more than the two low fantasy subjects with regard to concentration and imagination.

Intelligent Quotient and sex were found not to be related to imaginative play predisposition. The findings show that imaginative play training is useful for cognitive
development of young children in a relatively short time. The lower SES children in this study could have had the potential for displaying more imaginative play than they were showing, but seemed to lack the requirements for actually engaging in imaginative play.

In this study, Freyberg noted the positive relationship between make-believe play, concentration and affect. Freyberg's observation is consistent with the observations of Krown (1974) and Wolfgang (1977). Young children who appear to be non-productive in group play settings are frequently described as affectless and difficult to arouse. However, this relationship and observation warrants further interpretation.

In a study involving second grade black children from four schools located in a low socioeconomic status neighborhood, Sear (1972) investigated the relationship between sociodramatic play and school achievement. Her subjects were 34 girls and 36 boys ages six to eight years. She studied the extent to which the low SES group engaged in sociodramatic play, and found that this type of play does not correlate with school achievement as measured by the California Reading Test. There was no significant correlation between sex and sociodramatic status which indicates that both sexes can possess the prerequisites for sociodramatic play.

Feitelson (1972) was able to foster imaginative play among lower class Israeli children. He provided
nineteen preschool children with nine individual thirty-minute training sessions. The children ranged in age from two to four years of age.

There were nineteen facilitators involved. Each student was assigned to a specific child whose imaginative play has been observed to be absent or poorly developed. Utilizing a five-level scale of playfulness as an outcome measure, child or model behavioral episodes were rated according to: (1) model initiates, child passive (2) model initiates, child attends (3) model initiates, child contributes new elements (4) model initiates; child participates and (5) child initiates and/or contributes original elements. The findings revealed a decrease in level one and an increase in level five ratings.

Dansky (1976) studied the comparative effects of training in sociodramatic play and exploration training with two control conditions in 36 low economic status preschool children. Baseline levels of play were determined using six five-minute behavior samples which were rated for imaginativeness. The observer rated each of the five-minute behavior samples immediately after it occurred according to Freyberg's (1973) five-point imaginativeness scale. Each five-minute sample was divided into 15-second intervals each of which was rated for the presence or absence of eight play behavior categories: (1) constructive play (2) make-believe category (3) non-verbal interaction with the frame work of dramatic episodes
(4) role play (5) play relevant to verbal interaction (6) object transformation (7) pre-play (8) and those behaviors that did not fall into the above seven categories. The children were assigned at random to nine groups. Each group was made up of four subjects and these sub groups were randomly assigned to treatments. The treatment groups met for nine thirty-minute sessions.

In the play training group, modeling and participatory techniques involving the themes of family picnic, the doctor's office and grocery store were used in training sessions. The control group used an exploratory training that was designed to assist subjects to investigate the physical properties of play stimuli. In this group, efforts were made to avoid role play, although they were encouraged to interact with their peers and the trainer. A third group was exposed to play props and received no play training. The fourth group only participated in the pre and post testing. The experiment was conducted by one undergraduate student with experience in working with young children. In keeping with the studies reviewed earlier, pre-test levels of play were extremely low, suggesting that some form of interventions are required for productive play to emerge according to age norms.

The experimental group increased significantly in the areas of role play, verbal dramatic play interaction and object transformations. The control and comparison group did not make any gains. It was suggested that the training in sociodramatic play contributed to the gain and not
merely the exposure to toys and other play props.

In a study conducted by Singer (1973) and his associates, they reported that although high-low designation cannot be equated with play-treated - non treated designations, it is important to note that high concentration ratings are associated with high imaginativeness, and that high imaginativeness is associated with productive play.

In a study of two to five year-old children, Singer and Singer (1973) classified their subjects into high or low or fantasy predisposition (IPP). The IPP measures imaginativeness "(1) from stimulus bound to high originality; emotional (2) from no interest to extreme delight; and concentration (3) from high distractible to intensely absorbed" (Singer, 1973). The researchers observed the subjects in two play conditions, a structured and a free-play condition. They also measured the subjects' moods during both free and structured play and rated their levels of aggression for each minute of free time. The Singers found that children who have vivid imaginations can sit quietly longer than can less imaginative children.

The Singers suggested that these early tendencies to engage in greater or lesser amounts of imaginative play can be continued with observed adult tendencies toward greater or lesser fantasy behavior and that these tendencies may be reflective of the individual's life style or fantasy predisposition.
Biblow (1973) conducted an experiment to show that individuals skilled in fantasy can reduce feelings of aggression. The 30 fifth graders who were the subjects of the study were assigned to high or low fantasy designations on the basis of their scores on the Holtzman Inkblot Test (Holtzman et al, 1961) and "Just Suppose" Task (Torrance, 1960). Subjects were rated on imaginativeness, overt-aggression and mood during the play period in which frustration was experimentally induced. The subjects were exposed to aggressive and non-aggressive films which was a fantasy experience and then rated on overt aggression and mood during a free play period. The results showed a significant decrease in overt aggression under both conditions of aggressive and non-aggressive films. The low fantasy subjects showed no decrease in aggression viewing either film.

Highs showed decreased aggression to the films as a fantasy experience rather than to the specific contents of the films. Different mood changes were observed for high and low fantasy subjects. There were decreases in angry-annoyed scores to either film and increases in sad-downhearted and ashamed-contrite mood scores to the aggressive film for the high fantasy level subjects. Also, for the high fantasy level subjects, there was an increase in elated-pleased moods for the non-aggressive film. There were no mood changes for the low fantasy level subjects and for the high fantasy level subjects who were not
exposed to a film. The study showed that individuals with well developed fantasy skills can use any type of fantasy experience, aggressive or otherwise to reduce feelings of frustration and aggression.

Biblow (1973) also noted that the subjects with low fantasies were more motoric than the highs. This result is consistent with observations cited earlier and with reports from some investigators (Singer and Singer, 1973; and Freyberg, 1973).

Pulaski (1973) compared the effects of two degrees of structure upon children's fantasy, high structure or realism, and minimal structure or realism. She hypothesized that minimally structured materials, for example blocks, clay and dolls would stimulate children's fantasy more than extremely realistic toys. She maintains that minimally structured playthings will elicit variety in themes because the child's response would be less anchored to specific stimulus situations. Sixty-four white kindergarten first grade and second grade children of high sociodramatic level and above average in verbal ability were divided into high or low fantasy predisposition on the basis of scores gathered from the following measures: (1) a transcendence index derived from stories subjects told with their own drawings as the stimulus, (2) IPP, (Singer, 1973 and Barron Movement Threshold Inkblots, Barron, 1955)
Five categories of playthings were matched for the two toy conditions: (a) clay (b) paints (c) dolls (d) costumes (e) construction materials. Each subject was exposed to both toy conditions in random order for two 15-minute sessions each. The play room included a tape recorder, a large closet for storing toys and the observer recorded each child's behavior. Subjects were instructed to "play with anything you choose, but I'd like you to make up a story or put on a play for me."

At the end of the second play period with each play condition, the subject's play was interrupted and each subject was asked to stop what he or she was doing and make up an exciting story about a miniature rubber cowboy doll. A day following the conclusion of the play sessions, subjects were asked which toys they preferred and offered a choice of a small prize, highly structured, sex-typed toy such as plastic racing cars and tiny doll carriages for carrying a baby doll, or a minimally structured play material such as play doh.

Data were collected on the subjects' verbalization during play, as recorded by the experimenter who also served as the judge. The subjects' verbalizations were rated for richness of fantasy using a transcendence index, a five-point rating that established how distant fantasy content was from daily reality, and a three-point scale for organization of verbal fantasy.
As was predicted, the minimally structured toys produced greater variety of imaginative play themes than the highly structured toys. Subjects showed limited themes when play materials were highly structured. The boys showed higher levels of motoric activity than the girls. The more imaginative boys showed less gross motor activity than the less imaginative boys. The less imaginative group showed vigorous and uncoordinated mobility in that sample.

The final studies are those of Franklin (1970) and Saltz, Dixon and Johnson (1977). Franklin employed a structured play situation as one method of studying nonverbal representation in middle and lower SES preschool children. He found that the differences between lower and middle SES groups at ages of four and five years were not great. He also found a considerable amount of symbolic representation in the play of low SES children.

The children in this study were sixteen middle and upper SES preschool children and fifteen low socioeconomic status children. The subjects were individually tested in two structured play situations. There was a kitchen scene in which each child was asked to, "Pretend, make-believe that you are in the kitchen fixing something to eat," and a street scene in which each child was asked, "Could you pretend, make-believe that there is fire in one of the houses?" Each play situation was pretended twice, once with a set of realistic play materials and once with a set of non-realistic materials consisting of wooden materials.
The subjects' behaviors were initially classified as representational or non-representational. Three aspects of representational activity were employed: mode of showing representation for which several categories of verbal and non-verbal behavior were used, relationship of a subject's behavior to instructions, and level of representation, high or low. It was found that the tendency to assume a representative orientation was common to both groups. The occurrence of representational activity as a dominant mode was significant with the middle class subjects.

Both SES groups were able to use modes of representational activities, this included setting the table with realistic toys and making a construction from blocks. Dramatic play props were the most widely used of representational activity. It was evident that the middle class group employed verbalization as a mode of representation more than the low SES group. The middle class group showed a "high" level of representational activity, more so than the lower class group. There was more representational play and a higher level of play in the kitchen than in the street scene for both socio-dramatic status groups. Although boys and girls served as the subjects of this study, no sex differences were reported.

Saltz, Dixon and Johnson (1977) trained preschool children in one of three different types of fantasy activities for over a year. The effects of the training sessions were evaluated over a variety of task measuring cognitive
development and impulse control. This experiment was replicated over three different years. The findings showed that physical enactment of fantasy experiences had an impact on play, whereas listening and discussing was no more effective than the control condition.

These studies emphasize the effects that structure of toys available to the child have upon his level of play. Pulaski (1974) noted the need for the study of what a child brings to the playroom in expectations and style and what impact the kind of materials have on his play. Thus, a pattern of play begins to emerge as low fantasizers tend to be more aggressive and physically active than highly imaginative peers.

Summary

Despite interest in whether play is important in cognitive and emotional development, little firm evidence exists. Recent experimental studies have shown that encouraging fantasy and sociodramatic play in young children may lead to gains in some aspects of competence. Some of the gains may have been due to play tutoring, rather than play per se. For young children, fantasy predisposition may reflect a tendency to engage in fantasy behaviors in general and imaginative play in particular.

Imaginative play is associated with the capacity to (1) engage in play that is rated as imaginative, (2) show higher concentration and positive affect, (3) inhibit motoric and reduce overt aggression. When high and low fantasy subjects are both exposed to imaginative play trainings, the highs maintain their
concentration and imaginativeness over the lows.

**Aggressive Non-Productive Play Behavior**

A number of studies have shown that a considerable portion of the play activities of young children involve aggressive themes (Caldwell, 1977; Wolfgang, 1977; Bandura, 1973). However, the dynamics underlying an aggressive act such as homicide, may be different from the dynamics found in other forms of aggressive behavior.

How one views aggressive behavior determines to the extent one intervenes to reduce aggression. Many scholars have viewed frustration as an antecedent of aggression and have, therefore, tried to treat aggressive behavior by attempting to remove the cause of frustration. Though excessive aggression may not be the precursor of aggression, it should be known that one could never eliminate all forms of frustration from a child's life.

There is need to distinguish between normal and pathogenic frustration, which is the unnecessary, abnormal mistreatment to which many well-adjusted children would probably respond negatively. This distinction may well be one of the reasons treatment programs aimed at removing frustration often produce temporary changes in the behavior of aggressive children. (Redl and Wineman, 1954).

Many professionals view childhood aggression as related to a maladaptive functioning personality and inadequate superego development. Some form of psychotherapy is usually
prescribed to remove intrapsychic conflict and foster better coping with skills within this perspective. The literature is fairly pessimistic with regard to gains of psychotherapy as an effective tool for children.

The role of preschool experiences in the acquisition of aggressive behavior has been studied by Patterson, Littman and Bricker (1967). They offer an alternative explanation to aggression in children. They coded aggressive interactions occurring among three to five year-old children in two middle class nursery schools for approximately 60 sessions over a period of 26 weeks. For each aggressive act, a detailed record was made of specific actions, the victim's reaction and teacher behavior.

It was hypothesized that the "victim's" reaction would have an effect on the aggressor's subsequent behavior. If the victim reinforces the aggressor's behavior, the aggressor would likely aggress against another child on a subsequent occasion. It was also predicted that if the victim retaliated, or the teacher intervened, it would be redirected to another child. Another prediction was that the frequency of aggressive interaction and victimization would relate to the child's level of activity and degree of social interaction.

The results indicated that in a nursery school setting, positive reinforcement provided by the victim of an attack increased the probability that the aggressor would repeat the attack on the same victim. The non-aggressive children who
were socially active showed an increase in aggression after entering nursery school. The non-aggressive children who had little social interaction maintained a low level of aggression. These findings show the importance of the reinforcement process as a determinant of aggressive non-play behavior. Consequently, these results reveal the importance of research efforts aimed at activating non players to engage in productive play at the preschool level.

Grieger, Grieger and Kauffman (1976) also view peer groups in the nursery school setting as fertile training grounds for aggressive behavior and increasing cooperative play of children in a kindergarten classroom. In their study, preschool children were given the opportunity to report to their class during "Sharing Time" the cooperative or friendly behaviors of their peers which had occurred during play. The subjects were 90 children from the morning and afternoon sessions of two public school kindergartens. Sixteen observers rated aggressive acts and cooperative play during a 15-minute session on 23 days. The children were told by their teachers that at the end of each session, each subject would be given the opportunity to name a classmate who had been friendly to him at play period and to describe the friendly gestures. Children whose play behavior was described positively by a peer were permitted to select a happy face badge from a hook on the wall. Self reporting was not encouraged. Later, the subjects were given another opportunity to name those children who were friendly to them during play and were
encouraged to describe their friendly behavior. Self reporting was again discouraged, however, no badges were given to the children this time. Peer praise was the only reward available for those whose friendliness was reported by a peer. A reversal phase, in which unfriendly acts were reported by a peer was also implemented.

Peer reporting of cooperative play increased prosocial activities of the children. The median percent of cooperative play rose from 42% during the report and Happy Face phase. The reversal phase produced a decrease in cooperation and an increase in aggression. Also during reversal, the median number of aggressive acts rose to 40 per day and decreased to 6 during report only. The data for the morning and afternoon sessions were similar. The authors noted that peer reporting was a natural and inexpensive method of increasing prosocial responses of these children, thereby reducing aggressive responses.

During the early years, physical aggression is the usual means through which the young child can achieve desired goals and during this time it is difficult to distinguish between aggression and reasonable assertion of self interest.

Usually when aggression is discussed, it is defined as behavior, verbal or physical, that could improve or damage a person or thing without due provocation. It is sometimes very conjectural to try to assign intent to a young child's behavior. Caldwell (1977) asks, "Does the child who calls his teacher a dirty name intend to defame her or to study her
reaction for future references, or is he trying out words in an attempt to understand meaning?" She contends that behavior is aggressive if it merely hurts, injures or damages, regardless of intent.

Feshback (1970) has differentiated between instrumental and hostile aggression. Instrumental is the sort which is aimed at retrieval of an object, territory or privilege, that is that which follows when a goal is blocked. Hostile aggression is oriented toward another person, following some sort of ego threat or a perception that another person has behaved intentionally. Hartrup (1974) cites that instrumental aggression is far more common in young children. Dawe (1934) found that most of the aggression shown from eighteen months to almost six years of age was instigated by a dispute over possession. He also noted that during the early years, person-directed retaliatory hostile outbursts increase with age. The problem of intent centers around when the intent of the child's behavior is expressed as aggressive or assertive.

Assertive response is defined as direct verbal and non-verbal expression of one's feelings, needs, preferences or opinions. In contrast, aggression is a response, verbal or non-verbal, that delivers noxious stimuli to a person or object. Like an assertive response, an aggressive act can have both verbal and non-verbal components. (Hollandsworth, 1977)

The behavioral differentiations of these two concepts must focus on the verbal content of the interpersonal response
with its concomitant non-verbal components. A major problem with making a differentiation of this kind is whether or not the stimulus is perceived as noxious for one and pleasurable for another. This complexity has resulted in vague guidelines which define aggression as the denial of individual rights or as getting one's way at the expense of others. Hollandsworth (1977) clearly identified those behaviors which have high probability of being perceived as noxious and therefore aggressive. They include anger, disagreement, as well as standing up for one's rights. The definition and description of aggression is an important step toward understanding its development in children. It provides a framework from which one can proceed to examine the critical issues and determinations of aggression and the most effective methods for intervening to make aggressive behaviors unaggressive and productive. The principal findings will be briefly discussed and more extensive discussion is reserved for those research issues in which the investigator is most directly involved.

**Determinants of Aggression in Preschool Children**

In a study involving young children, it was found that most of the aggression shown by children from about eighteen months to almost six years of age was instigated by disputes over possessions. (Dawe, 1934)
Eisenberg-Berg, Haake, Hand and Sadalla (1979) in a recent study investigated the question of "possession" among preschool age children.

Sixty-eight preschool children 30-60 months of age were told that a toy belonged either to them or to the class or were given no instruction as to ownership. Each subject was taken by a familiar teaching assistant to be showed how to blow soap bubbles and the teaching assistant verbalized one of the three statements: "your" or "class" or "no instructions." The "your" instructions were the following" (Name), here are some bubbles. These are yours. They belong to you, and you can take them home when you go. These are inside toys. Now, let's go back into the classroom to play." The class instruction way was similar except that the two middle lines read as follows: "These are the class's. They belong to the school and you must leave them when you go home." In the "no instructions" condition, the first and last two lines of the "your" and "class instructions" were read to the subjects.

After instructions, the child returned to the classroom where behavior with bubbles was observed for four three-minute periods. A pair of blind observers watched the subjects through a one-way mirror. Behavior was recorded on the following: (a) defensive behaviors (b) sharing (c) impinged upon.
It was hypothesized that the young subjects would not respond differentially to the linguistic cues of ownership in the "class" and "yours" conditions whereas the older children would be generous in the "class" condition. Often, defensive behaviors occur in response to another child's attempt to use one object; children's defense scores were divided by the number of times that other children impinged upon the subject. Data on the defensive behaviors indicate that preschool children, regardless of age, respond differentially to different instructions regarding ownership.

The subjects defended personal objects more than objects belonging to the group. In the "class" condition, where the toys belonged to all the children, older children shared more than young children. The authors suggest that older subjects shared more in the "class" condition because they are less interested than the young children in toys belonging to the group. Nevertheless, the findings are consistent with Dawe's conclusion that during play, young children fight over their possessions. These data also supports the contention that children are capable of understanding instruction regarding ownership and, frequently, would modify their behavior to agree with the contents of instruction. Intervention could then be used to enhance productive play in children.

During the early years of a child's life, parental control and gratification determine whether a child is reinforced for aggressive or non-aggressive behavior, and serve as a model for the young child to imitate. For this reason, researchers
have given considerable attention to the relationship be­
tween various aspects of a child's home environment and the
development of aggression. According to Feshback (1971),
this research area presents certain problems. To begin
with, one cannot manipulate and control childrearing prac­
tices, but must study their effects in the context of a
large number of correlated influences. Maternal rejection
or severe punishments do not cooperate in isolations, but
occur in conjunction with other aspects of the home environ­
ment. Invariably, the child's behavior may affect the
mother's reaction to him so that it is often difficult to
say whether a particular parental method of handling a child
is a cause or is a result of the child's actions. In spite
of the existing problems, the research finding suggests
several conclusions. Children who are unwanted by their
parents, and who are given little attention at home, are
likely to develop hostile aggressive behavior. (McCord,
McCord and Howard 1961).

In each society, there are defined codes by which par­
ents are expected to rear children. Investigators Sears,
1957; Whiting, 1953; Bandura, 1973 conclude that parents
vary greatly on their qualities of parental warmth or cold­
ness, nurturance, control, permissiveness, authoritarianism
and democracy. These qualities are determined by two fac­
tors: (1) the personality of the parents and (2) the values
of the social class setting in which the family lives.
It is not the purpose of this review to delineate all the differences, but, to point out the relationship that exists between some of the attributes and one or more of the elements that affect aggressive non-productive play in children.

The role of the learning process in the development of aggressive behavior has been acknowledged in studies of childrearing practices. Body (1955) suggested that the differences in parent-child relationships and other factors are the differentiating variables in aggression patterns.

Levin and Sears (1956) made a test of the hypothesis that the frequency of five-year old children's fantasy aggression is in part a function of the children's identity with an aggressive role model. The frequency of aggression was measured in two doll play sessions with each of the 241 children; 126 were boys and 115 were girls. The degree to which the subjects identified with their parents, and the degree to which parents punished aggression, and identification of which parent that often punished, were determined from parents' interviews.

The results showed that the boys who were highly identified, and who had cues for male aggression provided by their fathers who usually punished them, showed the highest frequency of aggression. Girls were rated as aggressive only when identification was associated with severe punishment by mothers who usually did the punishing, i.e., when the girls were identified with an aggressive role model.
Abramson (1973) asserted that the maternal variables that influence aggressive behavior in preschool children were different from the maternal variables that influenced the expression of other types of aggressive behavior. His subjects were 122 black mothers and their preschool children. The mothers of the subjects were interviewed in order to obtain the subject's family composition. In his report, aggression was assessed by means of the doll play with the use of a multidimensional aggression scale.

A one-way analysis of variance was used to analyze father's absence, mother's age, mother's education, mother's occupation, father's occupation, occupation of the head of the household, total number of children, total number of older brothers, number of older sisters, other adults in the household, sex of the child and the presence of violent aggression in fantasy, as measured by the doll play and the sex of the child; all these were independent variables.

The findings showed that the subjects who had more older brothers expressed more violence in fantasy play; those who had other adults in the household did not express violence in fantasy. These results were the only clear differentiation between the two groups and point out the extent to which significant others can influence aggression; this cannot be overemphasized.

The relationship between aggressive behavior and learning experience is demonstrated not only in the suggestion of
aggressive behavior, but this relationship also exists be­
tween aggressive behavior and academic learning experience. 
Gardner (1971) cited that the effect of aggression on the 
learning ability of the deprived child is a result of two 

sources of fear: (1) the child may be afraid of aggression 
being directed at him by persons in authority and, (2) he 
is afraid that he is unable to control his own impulse to 
prevent aggression.

Smilansky (1968) reported that the ability to partici­
pate in role play in sociodramatic play or group play is 
dependent upon two processes: identification and imitation. 
She acknowledges the inconsistency in the definition of 
identification which causes lack of uniformity in the usage 
of the term. However, she proposes that identification is 
a fundamental concept generally implying that a child gives 
his allegiance to his parent and attempts to duplicate the 
ideals, attitudes, and behavior of the object of his alle­
giance. She sees identification as the primary motivating 
force for dramatic play in preschool children. She suggests 
that children need to model themselves in thought, feeling, 
action and reaction after adults in their immediate environ­
ment. (p. 64)

According to Kirchoff (1969), the possibilities for the 
full development of role playing are enhanced by the follow­
ing aspects of a parent-child relationship:

1. The mother of the child maintains a nurtured re­

lationship with the child during the preschool years.
2. The father participates in early development of the child and interacts with the child often. This interaction may be combined with nurturance and control.

3. The mother encourages the child's dependency.

4. The mother uses the withdrawal of love to control the child's behavior.

5. The child's behavior is assessed by reference to the motive it implies.

6. Parents give explanatory responses to a child's behavior.

7. The father and mother present a "common front" in their interaction with the child.

Kirochoff noted that a combination of the first four characteristics would lead to a strong identification with parents. When parents respond to the child's behavior as suggested in the last three statements, they provide the child with the basis for organizing his own behavior in terms of general principles and understanding the principles upon which their reactions are found.

The child would be less likely to identify with his parents if:

1. The mother limits nurturance to those situations in which the child's physical needs and limited ability is required.

2. The father only interacts with the child to control him and views child rearing as "woman's work."

3. The mother encourages dependency in the child and may resort to using punishment.

4. The mother depends on punishment and uses it as a major means of controlling the child.

5. The child's parents evaluate his behavior in terms of its immediate consequences.
6. The mother engages in expressive responses to the child's behavior.

7. There is little coordination between the behavior of the mother and the behavior of the father.

In fact, when parents respond to the child in the ways suggested by the last three statements, the parents provide the child with pieces of information from which he must draw general principles. Thus, role playing would be difficult and the ultimate result is usually aggressive, non-productive play. The scattered information acquired from his home environment limits the child's ability to succeed in school.

Wolfgang (1977) maintains that these children enter school lacking the prerequisites for formal learning. Some authors have reported that the highly aggressive child has low peer status.

Ankeney and Goodman (1976) in their study of aggression proceeded to investigate the relationship of passive and active aggression to each other. In their study, aggression was considered operationally in two respects; (1) passive aggression refers to behavior patterns which include both passivity and aggression, including such behaviors as procrastination, intentional inefficiency, obstructionism, and stubborness (American Psychiatric Association, 1968); (2) active aggression included verbal or physical behaviors which are intended to inflict pain or damage on another person, animal or an object, including teasing, tattling, spitting, kicking, threatening, hitting and throwing
The subjects of this study were 25 boys and 30 girls, all attending a private preschool in a middle class, all white neighborhood. They ranged in age from 2.0 to 5.6 years of age with a mean of 3 years, 11 months. Teachers completed rating forms on each of the subjects; they also supervised both work and free play experiences. The passive aggression rating form had a 15 item questionnaire which recorded responses according to a five-point scale. One form measured passive aggression while the other measured active aggression. The passive aggression form was adapted from the Morrison Teacher rating scale. (Morrison, 1967) Items 7, 19, 12, 13 were changed on this form to closely correspond to preschool behaviors because the original was designed for elementary school children.

The active aggression scale isolated such traits as hitting, verbal abuse, destruction of property and overt refusal. Responses to the questionnaires on each form were summed up, making it possible for a subject to score 15-75 points on both active aggressive factors. The subjects were rated by their teachers.

Person Product - Moment Correlation Coefficient were established to compare the relationships between passive aggression and active aggression, age and sex. The results indicated that there is a high positive significant relationship between passive aggression and active aggression.
There is also evidence to show that both types of behavior have a high probability of occurring within the same subject in this sample. The mean score of the subjects on the passive aggression variable was 34.27 with a standard deviation of 13.09. On the active aggression variable, the mean score 28.41 with a standard deviation of 12.19.

In comparing passive aggression and active aggression ratings with sex, in each case the boys were rated higher. There was no significant relationship between passive aggression and active aggression and age. This seems to indicate that both types of aggression are visible in children who are two years old as they are in children five and a half years old.

The role of reinforcement in the development of aggressive behavior in children has received considerable attention. Research in this area has stimulated significant insights into the processes by which a child may acquire aggressive behaviors from peers, teacher, parents and other models. The point made by studies in this area is that aggressive behaviors can be acquired without the prior performance and direct reinforcement of the behaviors. The dependence of an aggressive act upon the occurrence of a reinforcement is clearly demonstrated in the work of Lovaas (1961). In his investigation of generalization affect, he rewarded one group of nursery school children with a trinket whenever they made verbal
aggressive remarks to a doll figure, e.g., "doll should be spanked," "bad doll." another group was reinforced for non-aggressive verbal responses. After reinforcement training, the subjects were given an opportunity to play with a non-aggressive boy doll or with an apparatus which was set up in such a way that by depressing a lever the child would make one doll strike another on the head with a stick. The subjects that had been reinforced for verbal aggression used the aggressive toys more than the subjects reinforced for non-aggressive verbal responses.

Chasdi and Lawerence (1955) found that the frequency of aggressive behavior changes from one environment to another. When verbal punishment was used for any aggression displayed in a doll-play situation, the punished children exhibited lower frequencies of aggression than the children not so punished. The frequencies of the aggressive behaviors displayed by children who were initially punished increased to equalize those of the other group when the punishment contingencies were withdrawn in subsequent sessions.

The question of environmental situations and their effect on children's aggression is still a major unresolved question facing educational and developmental psychology. In a recent study Pearce (1978) observed children in the same environment where they have been together for eight months.
In this study, the relationship of socioeconomic status and aggression in preschool children was investigated. Aggression was defined as physical attack, destructiveness, humiliation, threat, and disapproval. Twenty children from lower class and twenty children from middle class backgrounds were the subjects. In the group of low socioeconomic status were twenty English-speaking white children, randomly selected from 35 children in a Montessori school. They ranged in age from three to six years. There were 10 boys and 10 girls. All subjects belonged to families who were receiving welfare payments and government subsidies allowing them to attend nursery school. They were all inner city children. The middle class children consisted of twenty English-speaking white children, randomly selected, and ranged in age from three to seven and five to eight years. There were 10 boys and 10 girls. None of the families were on welfare and none received government subsidies for day care.

The frequency of each of the five types of aggressive behavior displayed by the 40 subjects was recorded by two observers. The procedure ensured that observations were made with the observers' knowledge of the children's socioeconomic background. The behavior of each child was recorded in three ten-minute intervals and yielded 30 minutes of observation for each child over a three week period. The observers recorded the
presence of each of the five types of aggressive behavior.

An analysis of variance indicated no significant main effects or interaction were obtained for physical attack, destructiveness, humiliation, threat, and the total aggression score. However, there was a significant effect for sex with boys more disapproving than girls. No other effect for disapproval were significant. The subjects of this study might have been exposed to the same reinforcement contingencies during their stay together at the school, hence this accounts for the absence of a significant social difference in aggressive behavior. The results challenges Smilansky's (1968) assumption that lower SES children behave more aggressively than their middle SES peers; perhaps low SES culture teaches and rewards aggressive behavior. Smilansky asserted that the lower SES children in her study lacked the ability to integrate their experiences and showed more aggressive behaviors. Pearce's findings support Feshback's assertion that the frequency of aggressive behavior changes as a function of the permissiveness of the situation.

Feshback (1956) hypothesized that children initially low in aggressiveness, subsequent to a series of permissive play experience, will demonstrate an increase in aggressive behavior in comparison to a group of comparable subjects who have not had these play experiences. He assumed that children exhibit low aggressiveness because of high
inhibition than because of low drive strength. The predicted increase in aggressive behavior must be a function of the reduction of inhibition resulting from permissiveness of play experiences.

The experiment was designed to investigate if the consequences of playing with aggressive versus neutral objects were cathartic or stimulating with regards to the degree of "inappropriate" aggressive behavior shown by the subjects. "Inappropriate" aggression included taunting, striking or making derogatory remarks toward another member of the play group outside the context of a play theme. Aggression manifested in the context of an ongoing play and appropriate to that play was labeled "thematic." The effects of play experiences upon subsequent aggression ratings were also examined.

The subjects were 30 boys and 31 girls ranging in age from five to eight years. Their grade level varied from kindergarten to the third grade. The children were designated as High Aggressive (HAgg) and Low Aggressive (LAGG) depending upon their teacher's ratings. Subjects from both sex and from each level of aggression were randomly assigned to one of the following three groups: an Aggressive Toy Group, a Neutral Toy Group and a Control Group. The groups were stratified according to sex and level of aggression.

Each experimental group was divided into four play groups which consisted of five children. The group was
homogeneous with respect to age but heterogeneous with respect to sex and level of aggression in that no play group had more than three males or females and more than HAgg or LAgg children. Each play group met for one 50-minute session a week for a period of four weeks. A group leader played a record for the children, read a story, and then encouraged them to engage in free-play sessions which lasted for 21 minutes. At the end of the play, the children were given refreshments and a souvenir. Children in the Control Group continued with their regular classroom schedules and did not participate in any of the play sessions.

A particular theme was chosen for each play session, the record, story and the toys available for play.

Four themes were chosen for the Aggressive Toy Group - Indians, cowboys, soldiers and pirates - these encouraged thematic aggressive play. The themes chosen for the Neutral Toy Group were trains, circus, farm and store. The children's behaviors were scored for aggression by an observer seated in the corner of the room during the play period. All the subjects, including the Control Group, were rated by their teachers on aggression, subsequent to the completion of the last play session. Although the teachers knew which of their pupils were in the Control and Play Groups, and knew the general purposes and procedures of the experiment, they were not informed of the specific
hypothesis regarding the effect of permissive play experiences upon HA and LA children.

The observer was guided by the following rules during scoring. (1) Every occurrence of a particular aggressive behavior was to be scored. (2) If a behavioral episode involved more than one category (i.e., verbal threats accompanying physical aggression) it was to be scored under all relevant categories. (3) Where there is doubt whether an act is thematic or inappropriate, it was scored as thematic. Inappropriate aggressive play was then divided in fantasy and peer aggression, depending upon whether the manifested object of the aggressive act was a toy figure or another child. Peer aggression and fantasy scores were determined by adding all the instances of each type of aggression that occurred in the four sessions.

The results of the effect of type of play object upon inappropriate aggressive play revealed that aggressive play objects elicited much more inappropriate aggression than the neutral toys. The effect varied with grade levels. Aggressive toys elicited significantly more peer and fantasy aggression than the neutral toys in the upper grade group. In the lower grade, there was no significant difference regarding fantasy aggression while peer aggression was statistically significant. Feshback asserted that his results do not support the catharsis hypothesis because the greater amount of fantasy aggression displayed by the older
age group may be a function of factors such as a strong aggressive drive and difference in cognitive skills.

In order to determine the effects of play experiences upon subsequent aggression ratings, different scores between the teacher's first and second ratings of each child were computed. The results show that there was no significant differences between the control and experimental HAgg children in the proportion showing a decrement in aggression. There was a significant increase in classroom aggression between the control and experimental groups for the LAgg boys than for LAgg girls as determined by the teachers' ratings. The author offered several explanations as to why boys low in aggression tended to show an increase in aggressive behavior subsequent to a series of permissive free play experiences. It could be that the strength of inhibition against aggression was greater for girls. The LAgg boys initially received higher aggressive ratings than the girls. It was also suggested that the drive to aggression is low in girls and their unaggressive behavior is more a function of low drive.

Another variable that may affect a child's aggressive responses is the sex of the child. Marshall (1961) reported that boys used more hostile language during play than girls. Singer and Singer (1973) found that boys who are low in imaginative play predisposition are distinctly more aggressive than boys with high
imaginative play predisposition. The less imaginative boys in Pulaski's (1973) study showed more motoric activity and vigorous and uncoordinated mobility.

Despite the fact that males are generally recognized as the more aggressive of the two sexes, this generalization does not apply to all forms of aggression (Feshback, 1971). There is evidence that boys are more physically aggressive than girls. (Feshback, 1971) Sears and his associates make a distinction between forms of aggressive behavior which are disapproved or anti-social by the society. (Sears, 1961)

Expressing aggression in a socially approved way is an indirect form of aggression because it results in painful consequences to another person or thing. Sears obtained the difference between boys and girls depending upon a measure of anti-social or pro-social aggressive behavior. Boys were found to display stronger anti-social aggressive behaviors than girls, girls displayed pro-social aggression. Feshback and Sones (1970) found that girls tend to be more indirectly aggressive than boys. In this study, male and female adolescents who were close friends were formed into two-person groups to which a newcomer of the same sex was introduced. A problem-solving situation was used to observe aggressive interaction and in addition, the group members rated each other's personality. Girls more than
boys showed more negative reactions to the newcomer. The girls rated the newcomer less favorably than the boys and, on the behavioral interaction measures, displayed less friendly reaction to the newcomer. Additional information concerning sex similarities or differences will be provided by the separate analysis by sex of the data of this study.

Turner and Goldsmith (1976) investigated the stimulating properties of aggressive toys on children's antisocial free play behavior. The subjects were nursery school children four and five years old and both sexes (seven boys, three girls) were observed each of 16 mornings for 30 minutes of free play. Three different sets of toys were introduced to the children to create three different experimental conditions. Usual toys, toy guns and toy airplanes, in the usual toy condition, only the nursery school toys, for example, coloring books, puzzles, trucks, dolls, Lincoln Logs, toy boats, stuffed animals, tinker toys, picture books were presented to the children.

During the toy guns, (novel or aggressive) condition, guns were introduced in the playroom in addition to the standard nursery school toys. The guns were painted to look like cowboy guns, they cocked and produced sound when the trigger was pulled and were of light weight metal. The number of guns corresponded to the number of subjects
present during the play sessions.

In the toy airplane condition novel, non-aggressive, sufficient plastic airplanes were presented to the children in the playroom. A supervisor and two observers watched the subjects play with the various toys each day. Observers recorded instances of anti-social behavior in a 15-minute interval for each specified child on precoded data sheets. The order in which the subjects were observed was randomly decided before hand and remained constant.

Data were collected on the verbal anti-social behavior, and physical anti-social behavior. Verbal anti-social behavior included: (a) curses or swears at a person (b) making negative, critical, insulting remarks to a person (c) very bossy (makes demands and commands other people) (d) boasts, brags (e) threaten to do violence, hurt someone. Physical anti-social behavior included: (a) was in a fist fight, hits, kicks, or bites another person (b) pushes, pulls, shoves someone (c) grabs objects away from another person (d) picks on or teases others (e) breaks a major rule (f) damages or destroys property (his or others) (g) pounds fist or otherwise hurts self.

The comparison indicated that the mean response rate for the airplane condition was not significantly different from usual toys conditions. The mean rate of anti-social behavior for the toy gun condition was compared to the toy
airplane condition. The results showed that the toy guns produced a significantly higher rate of anti-social behavior.

Since the toy airplanes did not stimulate more anti-social responses, the findings support the hypothesis that toy guns would increase the rate of anti-social responses. The effects of the toy guns was not due to their novelty. The second part of this investigation was the Study II. The study was conducted using a different order of presentation for the toys. Study 1 was highly individualized and allowed for low response rate. In Study II, the entire group was scanned in each 15-second observation period. It was assumed that an observer could detect all instances of anti-social behavior. Two observers were involved in the second study. The subjects were 13 male nursery school children four to five years of age from a different school than the Study 1 group. The subjects were observed during free-play periods in their school playroom each of 15 mornings.

The order of toy presentation reversed so the Toy Airplanes were presented before Toy Guns. (a) There was a five-day baseline with only the Usual nursery school toys presented; (b) There were three days of Toy Airplanes in addition to their Usual Toys (c) Two days of reversal with the Usual Toys were presented in addition to the usual toys.
The two days of reversal with only the Usual Toys were presented to determine if the effect would continue when toys were removed.

The observers watched from a one-way mirror in the playroom. Since they could not hear the children, the observations were restricted only to physical anti-social behavior. The observers were the same assistants from Study 1 and were familiar with observation skills. The classroom teacher who had minimum interaction with the children during observations was present instead of a student supervisor. The Toy Gun mean was compared to the average rates of the other two conditions. The results showed that the toy guns produced a significantly higher rate of anti-social behavior than the average of the other two conditions. The novel toy airplane did not produce a comparable significant effect as the toy guns on anti-social behavior.

Summary

Literature related to theories of play, group play techniques with children and the variables that affect non productive play have been reviewed in this chapter. Sociodramatic play, because of its similarity to group play, was considered. Group play was seen to serve various functions, particularly in the social and emotional development of the child.

A number of studies were reviewed which pointed out the positive correlation which exists between productive play and improved academic performance.
CHAPTER III

METHODS AND PROCEDURES

This chapter contains a description of the sample of the study; instruments used, the play treatment, methods used, and the statistical analysis for the nine hypothesis are examined.

Sample

The design for this study called for the identification of a group of aggressive children at the preschool level. Sixty-four, 3, 4, 5 and 6 year olds from five classrooms at the Blue Ribbon Academy School in Columbus, Ohio, were the source for the subjects. Parents were contacted and from this pool of 64 children, 20 were selected to participate in the project. The 20 children qualified as aggressive children on the basis of definition offered in Chapter 1. The selection was made to provide two groups of ten children each matched by sex, age, and race. Four of the subjects changed schools and could not continue in the study. This left two groups of eight children each. One group contained six males and two females, two five year olds, two four year olds, two three year olds and two six year olds. Five were Caucasian and three were Black. The other group had six males and two females. Two were five year olds, three
Finally, numerous investigations were cited which reveal that in overall, aggressive non productive play is evident among preschool children.

Chapter III describes the methods and procedures used in the study.
were three year olds, one four year old and two were six year olds. Four were Caucasian; four were Black. (See Table I.)

Several other controls were imposed on the data collection:

Children whose scores were too low to suggest extreme emotional disturbance were not allowed to participate in the study.

Each teacher rated the child she had worked with for at least four months.

Scoring of the scales was performed by a doctoral student who is experienced with testing. This was another method used to ensure the accuracy of the test results.

Instruments

The study investigated the effectiveness of structured and unstructured group techniques utilizing play media with aggressive preschool children. The two assessment instruments for this study were selected on the basis of their adequacy as a measure of the play behavior of preschool children and their utilization in defining the aggression of preschool children.

The Behavioral Assessment Checklist was developed by Dr. Wolfgang of the faculty of Early and Middle Childhood Education at The Ohio State University. The scale enables the preschool teacher to make gross evaluation of a child's play behavior. Patterns of behavior are recorded along
with specific comments concerning the child's individual behavior. The checklist is composed of four sub sections concerning specific skills and abilities inherent in the stages of play development. Rating was based on a three point scale -- 3 indicating a particular strength and 1 -- a weakness on each item. By averaging the ratings assigned to each item within the sub section, a total behavior rating for each sub section was obtained. Items 2 and 3 under Section 2 were reversed so that a score of 3 = 1 and a score of 1 = 3 because the questions are in opposite direction.

Responses to the 34 items on the Behavioral Assessment Checklist are summed up, making possible a score of 34-102 for each child on the variables of social relationship, impulse control, play ability and critical times.

Reliability of the Behavioral Assessment Checklist is not reported. For the purpose of this study, reliability "split-half" on the Behavioral Assessment Checklist was established at .677. This degree of variability was deemed acceptable for experimental purposes in view of the variability of the young child's play behavior. A complete copy of the Behavioral Assessment Checklist may be found in Appendix A.

The Aggression Scale was developed by Morrison (1969) to isolate such traits as hitting, verbal abuse, destruction of property and overt refusal. The measure is a 15 item questionnaire which records according to categories of
intensity: "Always Like, 5; Usually Like, 4; Somewhat Like, 3; Seldom Like, 2; and Never Like." The scale was adapted from the Morrison teacher rating scale. The original scale was designed for elementary school age children, but items 4, 7, 12 were changed by Ankeney and Goodman (1976) to closely correspond to the behaviors displayed by preschool age children. Items 7 and 12 were reversed for scoring so that 5 = 1 and 1 = 5, 4 = 2 and 2 = 4 because the questions are in opposite directions. Each of the 15 items were rated on a 5-point scale according to categories of intensity. A score of 1 is given to the low aggression end of the scale and a score of 5 to the high aggression end. The total score is computed for each child, the minimum possible score for a subject being 15 and the maximum possible score is 75. Reliability of the Aggression Scale has been established at .835 (Morrison, 1969). The method used in determining this reliability is not reported. A copy of the Aggression Scale may be found in Appendix B.
Procedure

The researcher first met with the teachers and director of the school to present a summary of the study and a copy of the instruments. A discussion of the intent and procedures of the study followed. Each of the five classrooms were visited by the researcher three times during a one week period. During the second visit, the two teacher rating scales were distributed to the classroom teachers who rated each child in their classrooms on a series of 49 specific questions dealing with specific types of play behaviors and aggressive behaviors evidenced in preschool children. The teachers based their judgments on an approximately four month contact with the children.

The total score for the Behavioral Assessment Checklist were computed for each child, the minimum possible score for each child being 34 and the maximum possible number being 102. Those whose scores were lower than the median score were designated as aggressive. A low score on this scale was considered to be the result of the development lag in play skills. Efforts were made to eliminate those whose scores were too low as to suggest extreme behavior disorders. The minimum possible score on the Aggression Scale is 15 and the maximum, 75. High score on the Aggression Scale indicates a high degree of incidence of aggression. From a pool of 64 children, 20 were identified as aggressive
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1* Structure Group Technique (E₁).

2** Unstructured Group Technique (E₂).
by definition. During the third visit, the researcher collected the rating scales.

The selection and assignment of the subjects to the two treatment groups were accomplished through the use of a table of random numbers (Downie and Heath, 1974). The subjects were randomly assigned to the structured group technique utilizing play media ($E_1$) and the unstructured group techniques utilizing play media ($E_2$). At the conclusion of the random assignment, a coin was tossed in order to determine which group was the structured group and which was the unstructured group. The random assignment yielded two groups of 10 children, matched for age, sex and race. It was thus assumed that the groups were appropriately equal in each of the independent variables identified. However, four subjects, one boy and three girls, dropped out due to school closing and moving problems. However, the two groups of eight children who participated in the study met for 12-45 minute sessions over a period of five weeks. Each of the five teachers were asked to pre-test and post-test the children with whom she had worked. They were unaware of the theoretical rationale of the study or the assessment procedures.

**Structured Group Technique Utilizing Play Media ($E_1$)**

The purpose of the structured group technique utilizing play media was to provide the non-productive children a
means through which they could show social and emotional
development through play experiences. The adult leaders
engaged in productive play behavior and interaction with
the group. The leaders helped the children to identify
their feelings, but gave them some of their own honest
reactions.

Aggressive, non-productive children often maintain
themselves defensively in a state of hypersensitivity.
They are afraid of physical advances and have rigid bodies
(Wolfgang, 1977). It is imperative that the leader estab­
lish a physical binding relationship between an aggressive
child and others including the leader. The main objectives
of the structured group are to encourage aggressive children
to show play behavior that are characteristic of the pro-
ductive children and to be able to control their impulses.

The subjects in this group were accompanied by the
researcher to a room designated as "playroom" for this
study. Materials described in Dr. Wolfgang's Helping
Aggressive and Passive Preschoolers Through Play (Wolfgang,
1977) were presented to them. The four play media pro­
posed by Wolfgang were mirror activity, fluids,
miniature life toys and sociodramatic play including puppet
activities. These served as the basis for group discussion
and enabled the non players to meet and engage in the com-
ponents of dramatic and social dramatic play proposed by
Smilansky - imitative role play, make-believe play with
objects, make-believe with actions and situations, and persistence in role play. Wolfgang's program was designed for individual children, but in consulting with him, the program was expanded to include group processes in a pertinent and effective manner. Two adult leaders were always present during the sessions. Each activity took place over two sessions for standardization of the experiment. Children selected any activity at any other free choice time and intervention continued according to the general procedure. Each session lasted for 45 minutes.

To achieve the objectives of the structured group technique, the following guidelines were followed:

Guide I: Establishing control in dealing with others and reestablishing a body level of trust.

Goal: This activity is designed to enable non players to imitate with control and develop the awareness of their bodies.

Activity: Mirroring.

Materials:

A movable standing mirror, large enough to reflect the leader and a child.

Description: A leader sits in front of the mirror and informs the group that they are going to watch her do something funny with her face and that they should guess what she is doing. The leader then engages in several facial expressions. She then asks one child to stand in front of the mirror and mimic her funny faces and body references.
Preschool "lore" are used to enrich this imitative play. For example, peek-a-boo and "where is Thumbkin?" and body reference games like, "Show Me Your Nose" and "Show Me My Nose." The leader may take a child's hand physically in an attempt to reestablish a basic level of trust thus allowing the child a growing awareness of self. Through this activity the non player learns that actions can have a cause on others. All the children take turns to do the mirror activities with the leaders. It should be noted that much structure should be used initially and as the children become more productive, that is, take over the activity, the leaders move to "visual looking" and become non participant observers. Through mirroring, the children learn to imitate the precursor for imitation seen in symbolic play (Piaget, 1962).

Guide II: Learning to be a controlled influence on objects.

Goal: To enable the non player to use fluids freely but with control.

Activity A: Finger painting.

Materials:

4 large tubs of paint - red, green, yellow and blue
Smocks
Supply of paper towels
Supply of papers
Spoon for scooping paint

Description: The leaders bring four children at a time to sit in front of a table prepared for finger painting. A leader initially moves through the paint with a small piece
of wood in each hand, smears with one finger and then smearing with both hands. After this lead-in activity, the second leader imitates the first leader as the children watch. The leader asks her helper to place her hands on hers and feel how freely she moves her hands. At this point, the leaders then ask two children to place their hands on theirs and feel the free movement. All the children get a chance to smear paint with control. If a child gets carried away by the media, such as getting paint over his body or going clearly out of the paper boundary, a leader quickly inhibits this non-productive behavior by repeating the lead-in activity.

Activity B: Easel painting

Goal: As in A

Materials:

4 jars of paint - blue, red, yellow and green.
4 brushes.
Supply of papers.
Supply of paper towels.
Thumb tacks.
2-sided easel.
Paper plates.
Smocks.

The only difference from easel painting and finger painting is in the media.

Description: A leader informs the group what they are going to do. The leader starts painting on a paper plate thumb-tacked to the easel, defining the boundaries. The leader models the activity and instructs the children to
watch how she paints. Later a fresh paper plate is tacked and used to direct each child's attempt. The activity is experienced by a pair of children at a time, one on each side of the easel. Finally, after controlled painting within the structure of the paper plate, paper is substituted and each child is allowed to paint the entire paper. As the group learns "to be the cause" through dripping paint, stroking, the activity must be confined to the boundaries of the paper until the children are able to use fluid with control. If a child loses control, and smears over the product, the leader intervenes. Pictures made are labelled and saved for group discussion.

Fluid materials are able to show immediate actions of the child and gives him immediate feedback.

Guide III: Acquiring the ability to symbolize with toys.

Goal: To increase the number of variety of make-believe elements that the children incorporate into their dramatic play episodes.

Activity: Dramatic play with miniature life toys.

Materials:

Plastic pieces of household furniture.
Miniature life doll family (father, mother, girl, boy and baby) realistically dressed.
Small rubber animals both wild and domestic.
Building blocks - used by the leader to model dramatic play.
Hand puppets.

Description: The leaders sit in a semi-circle approximately six feet from and facing the group with the
miniature toys between the leaders and the children.

A leader structures play by telling the children that they are going to make the toys tell stories. The leader places before her a set of toys and instructs the group to watch her make the toys tell stories. The leader models the lead-in activity by making walls for rooms and places for furniture to create a familiar home situation for the children using the building blocks provided. She then makes the miniature dolls "walk" around the "house", making them "wake up," and eat breakfast, go to school, play a variety of situations familiar to the children and give a verbal explanation of the actions occurring. The children are given a chance, individually within the group, to imitate the leader's story and make their toys tell stories. They are instructed that the stories should have beginnings and endings. The animals could be as wild as they wanted them to be and this could be seen as a positive development if such aggression can be seen in their symbolic play. A leader intervenes to prohibit loss of control if it occurs. After each member of the group has imitated the leader's actions with success, the children are encouraged to make up their own stories. Puppet activities were encouraged at this point. As children become productive, the leaders become non intrusive. If a child has difficulty engaging in play, a leader may take him or her to the mirror, repeat mirror activities, and quickly bring him back to the
minature toys.

Guide IV: Acquiring the ability to symbolize in larger life space.

Goal: To have a group of non players play together to produce sociodramatic play.

Activity: Sociodramatic play

Materials:

Child size stove
Spoon, pots and pans
Dress up corner
Baby receiving blankets, to be used as pillows
Stethoscope
Women's hats/purse
Men's hats

Description: All other materials in the room are taken away for this activity. In this activity, the children instead of the toys, assume the roles. Verbal and non verbal interactions among the children are encouraged. A group of four children participate at a time. The children pick their own themes and the leader assists with verbal directions and verbal questioning. For example: "Lay down and pretend that you are sick, and when the doctor comes, tell him what is wrong with you." As play becomes more productive, the leader becomes less intrusive with verbal questioning. For example: "What will happen to the sick person when the doctor comes?" Then non directive statements are made after their various responses. For example: "I see that the doctor is now here and ready to look at you." The leader then retreats to a position of "looking on" and becomes a non participating observer.
Doctor, cook and nurse themes were often used for standardization purposes. In this study the activity took place over two sessions but the children were encouraged to engage in sociodramatic play at other times during the sessions and the general procedures for intervention continued. Through role-playing the children are expected to acquire the ability to follow social rules and move from the egocentric preschool level to the competitive "worker" level, committed to industry and acquiring cultural tools (Erikson, 1950; Wolfgang, 1977). A list of specific materials may be found in Appendix C.

**Unstructured Group Technique (E₂)**

The purpose of working with unstructured group technique utilizing play media was to use materials in this group in a variety of ways to express varied attitudes and feelings. Nelson (1968) says it provides means through which children could show social emotional growth through experiences. The researcher accompanied the children to the playroom immediately following the structured group. Playroom equipment for the unstructured group was different from the structured. The play equipment included the usual materials available in a preschool classroom. There were tables and chairs, and an assortment of toys and art supplies. A list of specific materials may be found in Appendix D.
Activities in the unstructured media groups were intended to be free choice play experiences with no definite end product in mind. Subjects were encouraged to select as they entered the playroom. The leaders provide safety precautions when necessary. They also assisted children in starting their activities, provided the materials and encouraged each member of the group to participate.

The leaders were instructed to attempt roughly equal levels of interaction in the two conditions.

Description of the Treatment Process

Beginning the week following the pre-testing procedures, treatment process for each member of the group began. The two group techniques took place in a well lighted room provided for this purpose by the director of the school. The room was unfurnished except for a few child desks and chairs. The walls and furnishing were void of distracting features. The play materials for the structured group were divided into four groups: mirror activity, fluid activity, miniature life toys and sociodramatic play. Puzzles and toys were also laid on the tables. Materials for the unstructured group were not arranged in any particular order. The subjects were assigned to the same leaders throughout the duration of the study. The play sessions took place at the same time and on the same days of the week for each group. The group techniques lasted for five
weeks, during which time each group met with their leaders for approximately twelve structured or unstructured group techniques of 45 minutes each.

Four adults who were experienced in children's play and preschool aggression served as the group leaders during the sessions. Two leaders worked with each group during a single session. The leaders participated in a pre-study orientation and consultation workshop concerning the group techniques and play materials used in this study.

The initial schedule of two days a week for six weeks was interrupted by the announcement that the school would be closing for good. The groups met for three days a week the last two weeks of the school's history resulting in a five week study instead of six weeks.

The leaders met the groups in the "playroom" where for the structured group, they were informed prior to a session what they would be doing and the directions to follow.

The leaders of the unstructured group merely informed the group that they were there to play with any toys of their choice and to take their time to play as they wished.

A 45 minute time limit was allotted to each individual play session and was adhered to as much as possible. To the extent that it was possible, conversation from the leaders to the subjects was limited to comments in direct
response to the subject's statements or comments during the play sessions. The leaders attempted roughly equal levels of interaction with their groups.

During the week following the final day of the group techniques, the experimental group (E₁) and the experimental group (E₂) were post-tested by their teachers on all the measures of play and aggressive behaviors.

The variables controlled for and their respective levels were:

1. Treatment
   - Structured Group Technique
   - Unstructured Group Technique
2. Sex
   - Males
   - Females
3. Age
   - 3, 4, 5, 6 year olds
4. Race
   - Black
   - White

The effect of each of these variables on pre-test scores were tested to determine equality of groups prior to treatment. For the post-test data, analysis of covariance was used, covarying on the comparable pre-test scale scores. The different scores were analyzed univariately through one-way analysis of variance.

Design of the Study

The intent of the study was to investigate the effects of two group techniques utilizing play media on a dimension of play progress and aspects of aggressive behavior. The data collected from pre and post-test were analyzed for
significance between the responses of the two groups of children who participated in the two conditions.

Children were matched in age, sex and race and by membership in either structured or unstructured groups. The research questions presented in Chapter One have been stated in the null form for statistical purposes. The null hypotheses follow:

**HYPOTHESES**

\[ H_{01}: \] There will be no significant difference between treatment groups on social relationships as measured by post-test ratings using measures of the Behavioral Assessment Checklist.

\[ H_{02}: \] There will be no significant difference between treatment groups on impulse control as measured by post-test teacher ratings using measures of the Behavioral Assessment Checklist.

\[ H_{03}: \] There will be no difference between treatment groups on play ability as measured by post-test teacher ratings using measures of the Behavioral Assessment Checklist.

\[ H_{04}: \] There will be no difference between treatment groups on critical times as measured by post-test teacher ratings using measures of the Behavioral Assessment Checklist.

\[ H_{05}: \] There will be no difference between treatment groups on aggressiveness as measured by post-test teacher ratings using measures of the preschool Aggression Scale.

\[ H_{06}: \] There will be no effect for sex on any of the four dimensions of play behavior as measured by post-test teacher ratings using measures of the Behavioral Assessment Checklist.

\[ H_{07}: \] There will be no effect for age on any of the four dimensions of play behavior as measured by post-test teacher ratings using measures of the Behavioral Assessment Checklist.
There will be no effect for race on any of the four dimensions of play behavior as measured by the post-test teacher ratings using measures of the Behavioral Assessment Checklist.

There will be no effect for the variables of sex, age and race on aggressiveness as measured by the post-test teacher ratings using measures of the Aggression Scale.

Treatment of Data

Statistical hypotheses were tested in comparing the effects of the structured group techniques and the unstructured group techniques utilizing play media on aggressive preschool children as expressed by the Behavioral Assessment Checklist and the Aggression Scale.

An analysis of covariance technique was applied to the data collected in this study. An analysis of covariance was considered a suitable procedure in that the variables that are being tested could be controlled statistically rather than experimentally. (Downie and Heath, 1974) describe analysis of covariance as appropriate for testing the significance of differences among means which have been influenced by one or more uncontrolled variables. They added that analysis of covariance adjusts the means for the effects of the uncontrolled variables and provides necessary modification in sampling error.

Duncan's multiple range test was utilized for making the post hoc multiple comparisons. The .05 level of confidence was used in this study.
Summary

In this chapter, the procedures and design of the study were outlined. Two instruments were used by the researcher to record differences in various dimensions of play and aggressive behavior. The difference between two groups of aggressive children on the basis of age, sex and race on the basis of structured or unstructured group technique designation were examined.

Sixty-four 3, 4, 5, and 6 year-old children in four classrooms were originally involved in the study. Twenty were identified as aggressive by definition. Sixteen of these children were randomly assigned to either a structured or an unstructured group that received a play intervention treatment. The treatment period lasted for five weeks, these children were tested for social relationship, impulse control, play ability, critical times and aggression on the measures of the Behavioral Assessment Checklist and the Aggression Scale before and after treatment.

The following chapter will present the data gathered and discusses appropriate analysis of these data.
CHAPTER IV

ANALYSIS OF DATA AND RESULTS

This chapter presents the findings of the study. The data are presented in tables and discussed following each table as they address the hypotheses in the investigation.

Two instruments were used in this study: The Behavioral Assessment Checklist, designed by Wolfgang (1977) and Aggression Scale, designed by Ankeney and Goodman (1976). Pre-test and post-test measures were obtained on each instrument.

Sixteen children were pre-tested and post-tested on play and aggressive behaviors. During the five week interval between the administering of pre-test and post-test, all the sixteen children received play intervention treatments. The children in the treatment group met for 12 sessions of 45 minutes each over a period of five weeks.

Using the analysis of covariance, mean post-test scores of the two treatment groups were compared to determine the effects of structured and unstructured group techniques using play media, on social relationship, impulse control, play ability, critical times and aggressiveness.

Analysis of covariance summary tables are presented including nine hypotheses and each of the dependent variables to which they relate. In all cases, the .05 level of
confidence was considered grounds for acceptance of the nine hypotheses examined.

**Hypotheses**

**Hypothesis 1.** There will be no significant difference between treatment groups on the social relationship scale as measured by the post-test teacher ratings using the Behavioral Assessment Checklist.

The mean scores on the post-test were compared using the analysis of covariance technique. The results of the analysis of covariance are presented in Tables 2 and 3. Table 2 provides the post-test scores disclosing that the mean score for structured group was 25.375 and for the unstructured group was 24.500. Table 3 provides data indicating that the F test for equality of the groups, F = .30, did not show any significant difference between the two groups. Therefore, the null hypothesis was not rejected. On the social relationship scale, there was no evidence of a significant difference between the groups.

**Hypothesis 2.** There will be no significant difference between treatment groups on impulse control as measured by the post-test teacher ratings using the Behavioral Assessment Checklist.

The mean scores on the post-test were compared using the analysis of covariance technique. The results of the analysis of covariance are presented on Tables 4 and 5. Table 4 provides the post-test scores disclosing that the mean score for the structured group was 4.125 and for the unstructured group was 4.500. Table 5 provides data
TABLE 2
MEANS AND STANDARD DEVIATIONS FOR PERFORMANCE BY TREATMENT GROUPS ON THE SOCIAL RELATIONSHIP SECTION OF THE BEHAVIORAL ASSESSMENT CHECKLIST

<table>
<thead>
<tr>
<th>Groups</th>
<th>Number of Subjects</th>
<th>Pre-test</th>
<th></th>
<th>Post-test</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Mean</td>
<td>S.D.</td>
<td>Mean</td>
<td>S.D.</td>
</tr>
<tr>
<td>Structured</td>
<td>8</td>
<td>25.125</td>
<td>2.642</td>
<td>25.375</td>
<td>2.445</td>
</tr>
<tr>
<td>Unstructured</td>
<td>8</td>
<td>24.625</td>
<td>2.722</td>
<td>24.500</td>
<td>2.828</td>
</tr>
</tbody>
</table>
### TABLE 3

**SUMMARY OF ANALYSIS OF COVARIANCE FOR POST-TEST SCORES ON THE SOCIAL RELATIONSHIP SECTION OF THE BEHAVIORAL ASSESSMENT CHECKLIST**

<table>
<thead>
<tr>
<th>Source</th>
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<th>Mean Square</th>
<th>F</th>
<th>P&gt;F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>3</td>
<td>50.40</td>
<td>16.80</td>
<td>3.99</td>
<td>.035</td>
</tr>
<tr>
<td>Error</td>
<td>12</td>
<td>50.53</td>
<td>4.241</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>15</td>
<td>100.93</td>
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**FACTORS IN THE MODEL**

<table>
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<th>F</th>
<th>P&gt;F</th>
</tr>
</thead>
<tbody>
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<td>PreSecl</td>
<td>1</td>
<td>41.363</td>
<td>9.82</td>
<td>.009</td>
</tr>
<tr>
<td>Treatment</td>
<td>1</td>
<td>2.497</td>
<td>.30</td>
<td>.596</td>
</tr>
<tr>
<td>PreSecl x Treatment</td>
<td>1</td>
<td>7.785</td>
<td>1.85</td>
<td>.199</td>
</tr>
<tr>
<td>Groups</td>
<td>Number of Subjects</td>
<td>Pre-test</td>
<td>Post-test</td>
<td></td>
</tr>
<tr>
<td>--------------</td>
<td>--------------------</td>
<td>----------</td>
<td>-----------</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mean</td>
<td>S.D.</td>
<td>Mean</td>
</tr>
<tr>
<td>Structured</td>
<td>8</td>
<td>5.500</td>
<td>1.414</td>
<td>4.125</td>
</tr>
<tr>
<td>Unstructured</td>
<td>8</td>
<td>6.125</td>
<td>1.246</td>
<td>4.500</td>
</tr>
</tbody>
</table>
### TABLE 5
SUMMARY OF ANALYSIS OF COVARIANCE FOR POST-TEST SCORES ON
THE IMPULSE CONTROL SECTION OF THE
BEHAVIORAL ASSESSMENT CHECKLIST

<table>
<thead>
<tr>
<th>Source</th>
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<th>Sum of Square</th>
<th>Mean Square</th>
<th>F</th>
<th>P&gt;F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>3</td>
<td>9.790</td>
<td>3.263</td>
<td>3.36</td>
<td>.055</td>
</tr>
<tr>
<td>Error</td>
<td>12</td>
<td>11.646</td>
<td>0.970</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>15</td>
<td>21.437</td>
<td></td>
<td></td>
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**FACTORS IN THE MODEL**

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<th>P&gt;F</th>
</tr>
</thead>
<tbody>
<tr>
<td>PreSec2</td>
<td>1</td>
<td>9.607</td>
<td>9.90</td>
<td>.008</td>
</tr>
<tr>
<td>Treatment</td>
<td>1</td>
<td>0.000</td>
<td>0.00</td>
<td>.010</td>
</tr>
<tr>
<td>PreSec2 x Treatment</td>
<td>1</td>
<td>0.182</td>
<td>0.19</td>
<td>.672</td>
</tr>
</tbody>
</table>
indicating that the F test for equality of the groups, 
F = 0.00, did not show any significant difference between 
the two groups. Therefore, the null hypothesis was not re-
jected. On the impulse control scale, there was no evi-
dence of significant difference between the groups.

Hypothesis 3. There will be no significant difference 
between treatment groups on play ability as measured 
by post-test teacher ratings using the Behavioral 
Assessment Checklist.

The mean post-test scores between the two groups on 
play ability were compared using the analysis of covariance 
technique. The results of the analysis of covariance are 
presented in Tables 6 and 7. Table 6 provides the post-test 
scores disclosing that the mean score for the structured 
group was 36.875 and for the unstructured group was 35.875. 
Table 7 provides data indicating that the F test for equality 
of the groups, F = 1.19, did not show any significant dif-
ference between the two groups. Therefore, the null hy-
pothesis was not rejected. On the play ability scale, there 
was no evidence of significant difference between the groups.

Hypothesis 4. There will be no significant difference 
between treatment groups on critical times as measured 
by post-test teacher ratings using the Behavioral 
Assessment Checklist.

Mean post-test scores on the critical time measures of 
the Behavioral Assessment Checklist were tested for signi-
ficance using the analysis of covariance technique. The 
results of the analysis of covariance are presented in 
Tables 8 and 9. Table 8 provides the post-test scores
### TABLE 6

**MEANS AND STANDARD DEVIATIONS FOR PERFORMANCE BY TREATMENT GROUPS ON THE PLAY ABILITY SECTION OF THE BEHAVIORAL ASSESSMENT CHECKLIST**

<table>
<thead>
<tr>
<th>Groups</th>
<th>Number of Subjects</th>
<th>Pre-test</th>
<th>Post-test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Mean</td>
<td>S.D.</td>
</tr>
<tr>
<td>Structured</td>
<td>8</td>
<td>33.750</td>
<td>4.50</td>
</tr>
<tr>
<td>Unstructured</td>
<td>8</td>
<td>36.000</td>
<td>2.83</td>
</tr>
<tr>
<td>Source</td>
<td>DF</td>
<td>SS</td>
<td>MS</td>
</tr>
<tr>
<td>------------------</td>
<td>----</td>
<td>-------</td>
<td>-------</td>
</tr>
<tr>
<td>Model</td>
<td>3</td>
<td>48.367</td>
<td>16.122</td>
</tr>
<tr>
<td>Error</td>
<td>12</td>
<td>155.382</td>
<td>12.948</td>
</tr>
<tr>
<td>TOTAL</td>
<td>15</td>
<td>203.750</td>
<td></td>
</tr>
</tbody>
</table>

**FACTORs IN THE MODEL**

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<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>SS</th>
<th>F</th>
<th>P&gt;F</th>
</tr>
</thead>
<tbody>
<tr>
<td>PreSec 3</td>
<td>1</td>
<td>32.211</td>
<td>2.49</td>
<td>0.140</td>
</tr>
<tr>
<td>Treatment</td>
<td>1</td>
<td>15.345</td>
<td>1.19</td>
<td>0.297</td>
</tr>
<tr>
<td>Presec 3X Treatment</td>
<td>1</td>
<td>0.810</td>
<td>0.06</td>
<td>0.806</td>
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</table>

TABLE 7

SUMMARY OF ANALYSIS OF COVARIANCE FOR POST-TEST SCORES ON THE PLAY ABILITY SECTION OF THE BEHAVIORAL ASSESSMENT CHECKLIST
<table>
<thead>
<tr>
<th>Groups</th>
<th>Number of Subjects</th>
<th>Pre-test</th>
<th>Post-test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Mean</td>
<td>S.D.</td>
</tr>
<tr>
<td>Structured</td>
<td>8</td>
<td>18.125</td>
<td>3.137</td>
</tr>
<tr>
<td>Unstructured</td>
<td>8</td>
<td>19.125</td>
<td>1.81</td>
</tr>
</tbody>
</table>
### TABLE 9

**SUMMARY OF ANALYSIS OF COVARIANCE FOR POST-TEST SCORES ON THE CRITICAL TIMES SECTION OF THE BEHAVIORAL ASSESSMENT CHECKLIST**

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>Sum of Square</th>
<th>Mean Square</th>
<th>F</th>
<th>P&gt;F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>3</td>
<td>9.728</td>
<td>3.242</td>
<td>.88</td>
<td>.477</td>
</tr>
<tr>
<td>Error</td>
<td>12</td>
<td>44.021</td>
<td>3.668</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>15</td>
<td>53.750</td>
<td></td>
<td></td>
<td></td>
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</table>

### FACTORS IN THE MODEL

<table>
<thead>
<tr>
<th>Source</th>
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<th>Sum of Square</th>
<th>F</th>
<th>P&gt;F</th>
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</thead>
<tbody>
<tr>
<td>PreSec 4</td>
<td>1</td>
<td>8.632</td>
<td>2.35</td>
<td>.1510</td>
</tr>
<tr>
<td>Treatment</td>
<td>1</td>
<td>0.844</td>
<td>0.23</td>
<td>0.6400</td>
</tr>
<tr>
<td>PreSec 4 x Treatment</td>
<td>1</td>
<td>0.251</td>
<td>0.07</td>
<td>0.7977</td>
</tr>
</tbody>
</table>
disclosing that the mean score for the structured group was 19.500. Table 9 provides data indicating that the F test for equality of the groups, $F = .23$, did not show any significant difference between the two groups. Therefore, the null hypothesis was not rejected. On the critical times scale, there was no evidence of significant difference between the two groups.

Hypothesis 5. There will be not significant difference between treatment groups on aggressiveness as measured by post-test teacher ratings using the Aggression Scale.

Mean post-test scores on aggressiveness between the groups were tested for significance using the analysis of covariance technique. The results of the analysis of covariance are presented in Tables 10 and 11. Table 10 provides the post-test scores disclosing that the mean scores for the structured group was 34.875 and for the unstructured group was 30.500. Table 11 provides data indicating that the F test for equality for the groups, $F = .14$, did not show any significant difference between the two groups. Therefore, the null hypothesis was not rejected. On the Aggressiveness measure, there was no significant difference between the two groups.
TABLE 10
MEANS AND STANDARD DEVIATION FOR PERFORMANCE BY TREATMENT GROUPS (E₁ AND E₂) ON THE AGGRESSIVENESS MEASURES OF THE AGGRESSION SCALE

<table>
<thead>
<tr>
<th>Groups</th>
<th>Number of Subjects</th>
<th>Pre-test</th>
<th>Post-test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>S.D.</td>
<td>Mean</td>
</tr>
<tr>
<td>Structured</td>
<td>8</td>
<td>40.375</td>
<td>16.14</td>
</tr>
<tr>
<td>Unstructured</td>
<td>8</td>
<td>31.125</td>
<td>14.642</td>
</tr>
</tbody>
</table>
### TABLE 11

**SUMMARY OF ANALYSIS OF COVARIANCE FOR POST SCORES ON THE AGGRESSIVENESS MEASURES OF THE AGGRESSION SCALE**

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
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<th>Mean Square</th>
<th>F</th>
<th>P&gt;F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>3</td>
<td>143.607</td>
<td>478.202</td>
<td>9.52</td>
<td>.0017</td>
</tr>
<tr>
<td>Error</td>
<td>12</td>
<td>602.829</td>
<td>50.235</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>15</td>
<td>2037.4375</td>
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**FACTORS IN THE MODEL**

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<th>P&gt;F</th>
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</thead>
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<tr>
<td>PreAgr</td>
<td>1</td>
<td>1372.8972</td>
<td>27.33</td>
<td>0.0002</td>
</tr>
<tr>
<td>Treatment</td>
<td>1</td>
<td>7.283</td>
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<tr>
<td>PreAgr x Treatment</td>
<td>1</td>
<td>54.427</td>
<td>1.08</td>
<td>0.3184</td>
</tr>
</tbody>
</table>
For hypotheses 6 through 9, a four way analysis of variance was run using the SAS to determine the difference between post-test and pre-test scores of the independent variables (1) treatment, (2) age, (3) sex, (4) race and (5) aggressiveness on the dependent measures of (1) social relationship, (2) impulse control, (3) play ability, (4) critical times and (5) aggressiveness. The analysis of variance summary tables are presented on Tables 12, 13, 14, 15 and 17.

Post hoc procedures using Duncan's test were performed to follow up the significant findings with sex and age. The results of these tests are presented on Tables 16, 18 and of the four dimensions of play.

Hypothesis 6. There will be no effect for sex on any of the four dimensions of play behavior as measured by change in teacher ratings using measures of the Behavioral Assessment Checklist.

Hypothesis 7. There will be no effect for age on any of the four dimensions of play behavior as measured by change in teacher ratings using measures of the Behavioral Assessment Checklist.

Hypothesis 8. There will be no effect for race on any of the four dimensions of play behavior as measured by change in teacher ratings using measures of the Behavioral Assessment Checklist.

Hypothesis 9. There will be no effect for the variables of sex, age and race on aggressiveness as measured by change in teacher ratings using the measures of the Aggression Scale.
### TABLE 12
SUMMARY OF ANALYSIS OF VARIANCE FOR THE SOCIAL RELATIONSHIP MEASURE (DIFFSEC1).

<table>
<thead>
<tr>
<th>Source</th>
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<th>Mean Square</th>
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<th>P&gt;F</th>
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</thead>
<tbody>
<tr>
<td>Model</td>
<td>6</td>
<td>29.181</td>
<td>4.863</td>
<td>1.00</td>
<td>0.4797</td>
</tr>
<tr>
<td>Error</td>
<td>9</td>
<td>43.7560</td>
<td>4.8617</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>15</td>
<td>72.9375</td>
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### FACTORS IN THE MODEL

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<th>P&gt;F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment</td>
<td>1</td>
<td>0.5625</td>
<td>0.12</td>
<td>0.741</td>
</tr>
<tr>
<td>Age</td>
<td>3</td>
<td>21.0826</td>
<td>1.45</td>
<td>0.293</td>
</tr>
<tr>
<td>Race</td>
<td>1</td>
<td>4.1367</td>
<td>0.85</td>
<td>0.380</td>
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<tr>
<td>Sex</td>
<td>1</td>
<td>3.3994</td>
<td>0.70</td>
<td>0.424</td>
</tr>
</tbody>
</table>
# TABLE 13

## SUMMARY OF ANALYSIS OF VARIANCE FOR THE IMPULSE CONTROL MEASURE (DIFFSEC2)

<table>
<thead>
<tr>
<th>Source</th>
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<th>Mean Square</th>
<th>F</th>
<th>P&gt;F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>6</td>
<td>7.0564</td>
<td>1.1760</td>
<td>1.18</td>
<td>0.394</td>
</tr>
<tr>
<td>Error</td>
<td>9</td>
<td>8.9435</td>
<td>0.9937</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>15</td>
<td>16.0000</td>
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</tr>
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## FACTORS IN THE MODEL

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<th>Sum of Square</th>
<th>F</th>
<th>P&gt;F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment</td>
<td>1</td>
<td>0.2500</td>
<td>0.25</td>
<td>0.628</td>
</tr>
<tr>
<td>Age</td>
<td>3</td>
<td>6.7730</td>
<td>0.27</td>
<td>0.149</td>
</tr>
<tr>
<td>Race</td>
<td>1</td>
<td>0.00053</td>
<td>0.00</td>
<td>0.982</td>
</tr>
<tr>
<td>Sex</td>
<td>1</td>
<td>0.03279</td>
<td>0.03</td>
<td>0.859</td>
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</table>
TABLE 14
SUMMARY OF ANALYSIS OF VARIANCE FOR THE
PLAY ABILITY MEASURE (DIFFSEC3).

<table>
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<tr>
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<th>Mean Square</th>
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<th>P&gt;F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>6</td>
<td>124.934</td>
<td>20.822</td>
<td>1.45</td>
<td>0.295</td>
</tr>
<tr>
<td>Error</td>
<td>9</td>
<td>129.065</td>
<td>14.340</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>15</td>
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<td></td>
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FACTORS IN THE MODEL

<table>
<thead>
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<th>P&gt;F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment</td>
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<td>42.250</td>
<td>2.95</td>
<td>0.120</td>
</tr>
<tr>
<td>Age</td>
<td>3</td>
<td>8.080</td>
<td>0.19</td>
<td>0.902</td>
</tr>
<tr>
<td>Race</td>
<td>1</td>
<td>31.0261</td>
<td>2.16</td>
<td>0.175</td>
</tr>
<tr>
<td>Sex</td>
<td>1</td>
<td>43.5775</td>
<td>3.04</td>
<td>0.115</td>
</tr>
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</table>
TABLE 15

SUMMARY OF ANALYSIS OF VARIANCE FOR CRITICAL TIMES MEASURE (DIFFSEC4).

<table>
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<tr>
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<th>Mean Square</th>
<th>F</th>
<th>P&gt;F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>6</td>
<td>54.2637</td>
<td>9.0439</td>
<td>2.16</td>
<td>0.1443</td>
</tr>
<tr>
<td>Error</td>
<td>9</td>
<td>37.7362</td>
<td>4.1929</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>15</td>
<td>92.0000</td>
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FACTORS IN THE MODEL

<table>
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<th>P&gt;F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment</td>
<td>1</td>
<td>0.2500</td>
<td>0.06</td>
<td>0.8131</td>
</tr>
<tr>
<td>Age</td>
<td>3</td>
<td>51.5423</td>
<td>4.10*</td>
<td>0.0431</td>
</tr>
<tr>
<td>Race</td>
<td>1</td>
<td>2.1201</td>
<td>0.51</td>
<td>0.4951</td>
</tr>
<tr>
<td>Sex</td>
<td>1</td>
<td>0.3512</td>
<td>0.08</td>
<td>0.7781</td>
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</table>

*P < .05

TABLE 16

DUNCAN'S MULTIPLE RANGE TEST FOR VARIABLE (DIFFSEC4)

<table>
<thead>
<tr>
<th>Grouping</th>
<th>MEAN</th>
<th>N</th>
<th>AGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>3.2500</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>B</td>
<td>0.14285</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>B</td>
<td>-0.666667</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>B</td>
<td>-2.000000</td>
<td>2</td>
<td>3</td>
</tr>
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</table>
### Table 17

**Summary of Analysis of Variance for Aggressiveness (DIFAGR).**

<table>
<thead>
<tr>
<th>Source</th>
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<th>Sum of Square</th>
<th>Mean Square</th>
<th>F</th>
<th>P&gt;F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>6</td>
<td>940.4921</td>
<td>156.7487</td>
<td>5.10</td>
<td>0.0151</td>
</tr>
<tr>
<td>Error</td>
<td>9</td>
<td>276.445</td>
<td>30.7161</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>15</td>
<td>1216.9371</td>
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<td></td>
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</table>

### Factors in the Model

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<th>P&gt;F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment</td>
<td>1</td>
<td>95.062</td>
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<td>0.112</td>
</tr>
<tr>
<td>Age</td>
<td>3</td>
<td>624.398</td>
<td>6.78*</td>
<td>0.011</td>
</tr>
<tr>
<td>Race</td>
<td>1</td>
<td>15.438</td>
<td>0.50</td>
<td>0.496</td>
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<tr>
<td>Sex</td>
<td>1</td>
<td>205.593</td>
<td>6.69</td>
<td>0.029</td>
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</tbody>
</table>

*P .05

### Table 18

**Duncan's Multiple Range Test for Variable (DIFFAGR).**

<table>
<thead>
<tr>
<th>Grouping</th>
<th>MEAN</th>
<th>N</th>
<th>AGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>2.5000</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>A</td>
<td>-0.2857</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>A</td>
<td>-6.3333</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>B</td>
<td>-19.0000</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>
### TABLE 19
DUNCAN'S MULTIPLE RANGE TEST FOR VARIABLE DIFFAGR.

<table>
<thead>
<tr>
<th>Grouping</th>
<th>Mean</th>
<th>N</th>
<th>SEX</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>6.75000</td>
<td>4</td>
<td>0 Female</td>
</tr>
<tr>
<td>B</td>
<td>6.33333</td>
<td>12</td>
<td>1 Male</td>
</tr>
</tbody>
</table>
Summary

In hypotheses 6 through 9, a four way analysis of variance was run to determine the differences, if any, between the levels of independent variables of treatment, age, sex and race on the dependent measures of post-test scores minus pre-test scores for social relationship, impulse control, play ability, critical times and aggressiveness.

Tables 12, 13, 14, 15 and 17 provide data indicating that treatment and race did not show any significant effects on any of the dependent variables. However, significant age and sex effects were found on the aggressiveness measures as shown on Tables 17, 18 and 19 and age had a significant effect on the critical times measure as shown on Tables 15 and 16.
CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

SUMMARY

The first chapter provided the concepts involved in this research; it included a statement of the problem which included the importance of this study; a presentation of nine pertinent questions; and the limitations of the study. Theories of play, group play techniques with children and the variables that affect aggressive non-productive play behavior were reviewed. The methodology, procedures of the study and the null hypotheses that originated from the questions were presented, including a description of the setting and sample, the instrumentation, the design of the study, and the treatment of the data. The findings from the statistical analyses of the data were discussed. The purpose of this chapter is to summarize the investigation and present conclusions and recommendations.

The purpose of this study was to examine the effects of structured group techniques and unstructured group techniques utilizing play media on productive play behavior and aggressive non-productive play behavior of preschool children.

The variables examined were structured group techniques, unstructured group techniques, social relationship, impulse control, play ability, critical times, aggression, age, sex
and race. These were selected because of their suspected influence on aggressive non-productive play behavior. Two assessment instruments were employed in the study, the Behavioral Assessment Checklist (Wolfgang, 1977) and the Aggression Scale (Ankeney and Goodman, 1976). Level of non-productive play was determined by the ratings a child received on the Behavioral Assessment Checklist and the level of aggression was determined by the rating a child received on the Aggression Scale.

The design of this study called for the identification of a group of aggressive non-productive children at the preschool level. Sixty-four three, four, five and six year-olds from five classrooms at the Blue Ribbon Academy School in Columbus, Ohio, were the source for the subjects. The sixty-four children were administered the Behavioral Assessment Checklist and the Aggression Scale. Twenty of the preschool children qualified as aggressive on the basis of definition. Four of the subjects dropped out because of school transfer due to a short notice of the school closing of Blue Ribbon Academy School.

The sixteen subjects designated as aggressive were matched for sex, age and race and were randomly assigned to the structured group or the unstructured group using a table of random numbers. At the conclusion of the random assignment, a coin was tossed to determine which group was the structured group and which was the unstructured group. The study met the assumption that the groups were approximately equal in the
selected independent variables. The assessment instruments for this investigation, the Behavioral Assessment Checklist and the Aggression Scale were selected on the basis of their adequacy for the assessment of play behavior of preschool children and their utilization in defining the aggressive behavior of preschool children.

The physical setting was considered in planning the group techniques utilizing play media. In the playroom, steps were taken to minimize the possibility of physical injury to the children. The playroom was well lighted, the walls were devoid of distractions for the purpose of this study. The room was equipped with a variety of toys and other media conducive to work in this play situation.

The subjects were pre-tested on all measures of dependent variables. The structured group of eight subjects was subdivided into two groups of four, when appropriate for the purpose of the treatment. The criteria for grouping children in play situations have not yet been clearly formulated, much less experimentally validated. For the purpose of this study, however, each child had the opportunity to associate with personalities different from and complementary to his or her own, as it is in a classroom situation. The structured group participated in the developmental play intervention described by Wolfgang, (1977) which was expanded by the researcher to make group process pertinent for young children.
The experimental manipulation, structured group technique utilizing play media, the independent variable, was performed with the experimental group \( (E_1) \) on the same days as the unstructured group \( (E_2) \). Both groups met for twelve forty-five minute sessions over a period of five weeks; at the conclusion of which the post-tests, the dependent variables, were measured. The unstructured group received materials that consisted of free-choice play experiences. This group was designated as a non-tutored group rather than as a control group. The implication is that two different treatment conditions, initially conceived as having equal status were being compared.

The experimental groups were supervised by four adult group leaders. The two leaders in the structured group assisted the aggressive child to achieve appropriate levels of expressive impulse control and develop more mature modes of coping with limits imposed on his impulsive expressions. Responses by the leaders in both groups were directed to the group or to individual behavior. The play situation was not structured for the second group.

An analysis of covariance was used to determine whether the structured group differed from the unstructured group on all measures of the dependent variables. An analysis of variance was used to determine the difference between post-test and pre-test scores for all measures of dependent variables, using treatment, age, sex and race as independent variables. Post hoc procedures using Duncan's test were
performed to compare the significant findings with age and sex.

**Conclusions**

The following discussions describe the findings of the investigation as they relate to the hypotheses in this study. Conclusions are included as they relate to specific findings and as they are generalized from other dimensions of the study.

**Hypothesis 1**

There will be no significant difference between treatment groups on social relationship as measured by the post-test teacher ratings using the **Behavior Assessment Checklist**.

It was found that the aggressive preschool children receiving structured group techniques utilizing play media did not make significantly greater gains in assessed mean social relationships than the subjects not receiving such an experience.

This finding is not the same as that of Parten and Newhall, (1933). They studied social participation among two and one-half to four and one-half year-old preschool children. They reported that the highest age group was found to play in highly organized groups, associative and cooperative, more than the young children. The difference in the research finding may be a reflection of different age groups regarding social participation or social relationship. It was also possible that length of attendance at preschool affects social relationship measures. Since the longer the children remain
in school, the more sociable they become, it might be lack of preschool experience which accounts for the lesser gains in assessed mean social relationship in this study. One might assume that familiarity with the preschool setting would determine the readiness with which children would engage in group play and the degree of social relationship involved in it, therefore, social relationship ability may emerge at different ages in children. Further, low levels of social relationship status children comprised the sample of this study. Basic differences between the low level social relationship status of the subjects of this research and the subjects of Patern and Newhall's study did exist and may have had an effect on the results of this study.

Hypothesis 2

There will be no significant difference between groups on impulse control as measured by post-test teacher ratings using measures of the Behavioral Assessment Checklist.

The effect of structured group techniques and unstructured group techniques utilizing play media on impulse control for both groups was examined. The post-test scores for the structured groups was 4.125 and that of the unstructured was 4.500 indicating that there was no evidence of significant difference between groups.

Hypothesis 3

There is no difference between treatment groups on play ability as measured by post-test teacher ratings using measures of the Behavioral Assessment Checklist.
Participation in play ability required that the child be rated on his or her potential abilities and knowledge in sensory play, construction play, symbolic play and sociodramatic play. It was found that aggressive preschool children receiving structured group techniques utilizing play media did not make significantly greater gains in assessed mean play ability than subjects not receiving such an experience.

In contrast to this finding, Smilansky (1968) found that the sociodramatic play of her subjects increased after a play intervention program. She reported no evidence that the increase had any effect on cognitive performance of the children. Feitelson and Ross (1973) reported an increase in originality as measured by the Torrance Tasks after a play intervention. Freyberg (1973) found an increase in ability for verbal communication; and Rosen (1974) reported an increase in performance in problem-solving tasks.

The positive gains reported by these investigators are the products of sociodramatic play intervention, which is one segment of the play ability skills required of non-players. The successful play ability subject can engage in sensory play, construction, symbolic play and sociodramatic play. Therefore, to engage in play ability series is a more significant achievement than engaging in sociodramatic play alone. This is not to say that sociodramatic play is not important in learning, but the presence or absence of the other skills are generally deemed necessary in successful productive play and they form
building blocks for sociodramatic play.

Hypothesis 4

There is no relationship between treatment groups on critical times as measured by post-test teacher ratings using the Behavioral Assessment Checklist.

Aggressive preschool children receiving structured group techniques did not make significantly greater gains in assessed mean critical times scores than aggressive preschool children not receiving such an experiment. However, an analysis of variance using Duncan's multiple range test revealed that the 6 year-olds differed significantly from the five, four or three year-olds. The significant effect of age on the critical times measure reflects the ability of older children to cope with preschool environment perhaps because of the length of their attendance. The items in this area seem to be measuring their endurance. For example, the older the child, the more he or she is able to separate from his or her parents when they leave him or her at the school persist in the school setting.

Hypothesis 5

There will be no difference between treatment groups on aggressiveness as measured by post-test teacher ratings using measures of the Aggression Scale.

Aggressive preschool children receiving structured group technique utilizing play media did make significantly greater gains in assessed mean aggression than subjects not receiving such an experience. However, an analysis of variance revealed a significant age and sex difference on the Aggression Scale.
The researcher is in agreement with Feshback and Stones (1970) who found girls to be more aggressive than boys in their study. Girls were rated as aggressive when "identification" was associated with severe punishment by mothers who usually did the punishing, i.e., when the girls were identified with an aggressive role model (Levin and Sears, 1956).

However, it should be noted that an aggressive response, like an assertive response, can have both verbal and non-verbal components (Hollandsworth, 1977). It can be inferred that the significant findings with sex on the Aggression Scale may be attributed to an increase in verbal and non-verbal expression of one's feelings, needs, and preferences. Aggression may be a normal outgrowth of the information processing activities and social development of the child, as indicated by the female subjects of this study. However, the extent and quality of such aggression appear to be dependent upon such factors as environment, opportunities to learn and practice the skills involved in the use of the play media freely, but with control.

For hypotheses 6 through 9, the analyses of variance discussed earlier were run to determine the differences, if any, between levels of independent variables, treatment, age, sex and race on the dependent measures of post-test minus pre-test scores for social relationship, impulse control, play ability, critical times, and aggressiveness. Treatment and race did not show any significant effects on any of the dependent measures.
Age and sex had significant effects on the Aggression Scale and age had a significant effect on critical times.

The most important findings of this research, the highly significant age and sex difference on aggressiveness among preschool children and the influence of age on critical times, all underscore the importance of these variables in defining productive play at the preschool level. It is also possible to conclude that some of the items on the Aggression Scale tended to be culturally biased towards males, for example, "He often directs physical aggression toward the teachers," and "He often destroys property, work materials and/or toys." The assessment of aggressive non-productive play might be best met by using instruments that are culturally balanced towards both males and females.

Another conclusion which emerges from the findings is that generalization of these findings to other settings and other groups of non players should not be assumed without evidence to determine the variables which mediate aggressive non-productive play such as race, sex and age. If research is to demonstrate the contributions productive play can make to child development, these variables must be examined. The finding of no significant difference between levels of group techniques and aggressive non-productive play in children would suggest that social relationship, impulse control, play ability and critical times are not affected by structured and/or unstructured group techniques utilizing play media. This may be due to the possibility of "halo effect" of the teacher rating
instruments used in the study and/or other procedural issues as well. Since no significant findings between race and group techniques utilizing play media were found, both black and white children can show non-productive play behavior. Also, these kind of data are important in planning for play interventions research.

It can also be concluded that since the group leaders were instructed to allow equal levels of interaction in both conditions, this eliminated more intensive adult child interactions that may have been responsible for the positive gains reported by other investigators mentioned earlier. Play tutoring, rather than play per se, resulted in the increase of verbal communication reported by Freyberg, (1973) and in the increase in problem-solving tasks reported by Rosen (1974). It does not mean that play tutoring is not worthwhile. It seems adequate to have results as good as or better than non-play tutoring. However, it is not to say that a play facilitator is not important in play process. The notion here is that the adult becomes a playmate with the child according to terms expressed by the adult. Such a situation may retard the child's play activities through which he may learn ways of operating with peers in social situations, test various roles and express his or her frustrations and concerns.

A further conclusion drawn from the study points to the fact that increased attention needs to be given to ways of developing or encouraging productive play in preschool children.
In developing a rationale for group procedure with children in the educational area, Nelson (1972) cites Havighurst as saying that elementary school children are at a growing stage during which getting along with age mates and developing an independent self are crucial matters. Group processes that are effective should help the child in each of these areas. Group techniques involving the preschool children have neither been well defined nor tested. With preschool programs a reality in many public schools, the counselor is required to provide suitable services for the preschool child.

Another conclusion is that while the absence of elementary school counselors trained in verbal and non-verbal communication in group techniques appears to have limited the use of group techniques with the very young (Nelson, 1972), new approaches and present practices in the use of group techniques with young children must be explored to determine the extent to which they are to be continued or incorporated to enhance the effectiveness of the counselor's work (Munson, 1970).

Understanding the importance of play and the non-playful practices that could serve equally in furthering the acquisition of skills should be included in initial training programs for counselors and teachers and in the continued professional training in personnel services. Play experiences not only provide an outlet for emotional releases and for constructive investments of energy, but they also assist the children in initiative concept formations, language development, social encounters and in problem solving.
As most children enjoy playing, a teacher or counselor may show respect for the child's interest by allowing play in the room. As more investigations are undertaken to assess the values of play as it relates to various dimensions of childhood tendencies, the more likely educators will view this relationship as an important avenue by which they may work to help preschool children to develop more fully.

Recommendations for Further Study

The following section provides a list of recommendations in the event that future study is prompted by this endeavor.

(1) A replication of this study should be conducted which includes directive to non-directive leader behavior continuum in both groups. This would allow further examination of the leadership variable in play techniques. The role of the group leader, sex of the leader, and the amount of training he or she received, might be other areas of exploration.

(2) Further studies should be conducted which employ some other measures of productive play. These should include measures which examine various other dimensions in play such as symbolic play, construction, dramatic play and sociodramatic play.

(3) Future studies should be conducted to measure effect of age, sex and race on non-productive play in a more direct manner. This would allow further examination of these significant variables.

(4) Variation on the length of the treatment period and the extent to which the play media are structured could provide another area of further study. Both of these would appear to be of importance in play techniques.
APPENDIX A

BEHAVIORAL ASSESSMENT CHECKLIST
# Appendix

## Behavioral Assessment Checklist

**Child’s Name** ___________________________  **Date** __________

**Behavioral Assessment Checklist**

**For Preschool Children**

**Directions:** Put a check (✓) in the appropriate column to indicate frequency for this child in each item.

### Section 1

<table>
<thead>
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<th>2</th>
<th>1</th>
<th>0</th>
</tr>
</thead>
<tbody>
<tr>
<td>relates physically around times of positive effect</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>accepts physical comfort in times of negative effect</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>relates with language to express needs</td>
<td></td>
<td></td>
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<tr>
<td>engages in conversations</td>
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<tr>
<td>speaks in sentences (at least five words)</td>
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<tr>
<td>relates physically in times of positive effect</td>
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<tr>
<td>accepts physical comfort in times of negative effect</td>
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<tr>
<td>relates with language to express needs</td>
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<tr>
<td>engages in conversations</td>
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### Section 2

<table>
<thead>
<tr>
<th>Impulse Control</th>
<th>3</th>
<th>2</th>
<th>1</th>
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</thead>
<tbody>
<tr>
<td>withdraws passively when intruded upon</td>
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<tr>
<td>defends self with physical aggression (bites, kicks, strikes, etc.)</td>
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<tr>
<td>defends self with aggressive language (swearing, bathroom talk or scribbling others)</td>
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<tr>
<td>resolves peer conflict with language or social means</td>
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</table>

### Section 3

<table>
<thead>
<tr>
<th>Play Ability</th>
<th>3</th>
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</thead>
<tbody>
<tr>
<td>Sensori-motor play</td>
<td></td>
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<tr>
<td>engages in sensori-motor activity with most large climbing equipment</td>
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<tr>
<td>Construction</td>
<td>often</td>
<td>sometimes</td>
<td>never</td>
<td>not applicable</td>
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<td>--------------------------------------------------</td>
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<tr>
<td>engages with confidence in various media (fluid)</td>
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<tr>
<td>engages in controlled sensorimotor activity with media, with no product</td>
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<tr>
<td>draws or paints lines and circles</td>
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<tr>
<td>names his painting or drawing products</td>
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<tr>
<td>produces five or more recognizable symbols in drawings or paintings</td>
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<tr>
<td>produces products with peers</td>
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<tr>
<td>Symbolic Play</td>
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<tr>
<td>plays symbolically (micro) in isolation</td>
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<tr>
<td>does parallel symbolic play (micro or macro)</td>
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<tr>
<td>(social-dramatic)</td>
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<tr>
<td>(1) does imitative role play</td>
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<td>(2) makes-believe with objects</td>
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<td>(3) persist in task for five minutes or more</td>
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<td>(4) does interact with peers</td>
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<td>(5) uses language to maintain play</td>
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<tr>
<td>Section 4 - Critical Times</td>
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<tr>
<td>can separate from parent and engages in play</td>
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<tr>
<td>enjoys eating most foods</td>
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<tr>
<td>appears relaxed at snack</td>
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<tr>
<td>accepts comfort at rest</td>
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<tr>
<td>is usually able to relax</td>
<td></td>
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<tr>
<td>is able to be a member of a small group for five minutes or more</td>
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<tr>
<td>reunites well with parents</td>
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These consist of pages:

151
Fluid and Structure Continuum

- 2 tables
- 6 chairs
- water play toys
- aluminum and plastic measuring cups
- a double easel with nonspill paint, paint jars and smocks
- playdoh on board plastic knives
- farm and zoo animals (wild and domestic)
- puppets
- family animals
- dress-up and undress-up dolls
- farm house

Montessori Materials—Table Games

- inlay puzzle
- unit blocks
- four pairs of scissors (blunted), paper, paste
- giant blocks
- typewriter
- strings and beads
- pegboard, lacing board
- lego multi-fit
- stand-up mirror
- construction paper (assorted colors)
- housekeeping equipment (including stove and cooking utensils)
- costume box with dress-up clothes
- blanket for play
- plastic food
- variety of hats
- toy telephone
- toy bed

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Open (fluids) ———— Structured

Water play
Finger painting
Dry sand play
Easel painting

Wet sand play
Clay and play-dough
Drawing

Lotto games
Montessori materials
Form boards
Puzzles

Materials continuum
APPENDIX D

UNSTRUCTURED PLAY MEDIA
Furniture
- 2 tables
- 6 chairs

Toys
- hand puppets; male and female
- play bones
- playdoh
- plastic plates and knives
- food coloring
- water/sand
- miniature life toys
- boy doll; white
- boy doll; black
- girl doll; white
- girl doll; black
- 1 double easel with nonspill paint jars and smocks
- 1 set of plastic play tools:
  a. 1 hammer
  b. 1 screwdriver
  c. 1 pair of pliers
  d. 1 wrench
  e. 1 screw
  f. 1 bolt

Art Media
- playdoh; assorted colors
- crayons
- scissors (4 pairs - blunt ends)
- paste -- 2 jars (8½ oz.)
- construction paper; assorted colors
BIBLIOGRAPHY


Feshback, N. & Feshback, S. "Children's Aggression" Young Children 1971, 364-376.


Sears, S. "The Relationship Between Dramatic Play and School Achievement of Second Grade Low Socioeconomic Status Black Children." Dissertation, The Ohio State University, 1972.


