CHAPTER II

REVIEW OF LITERATURE

A large number of studies have been conducted by several investigators to explain the development trends of play patterns in children and also to explain the role of play in children's social, moral and cognitive development. In the present section all these studies have been reviewed. To simplify the review all studies conducted by previous investigators have been elaborated under the following heads:

Environmental Factors on Child's Play

Marshall in 1931 made a series of studies of play activities and he found the following conclusion: (1) play life is strikingly independent of temporal or social barriers. (2) older children become slightly less social and engage in a smaller number of activities than younger children. (3) the gifted child shows the same play interests except for greater maturity, and more inherent in games requiring thinking. (4) there are, in all differences generally partly due to training and partly inherent. High older rural children are less secure to play interests than are urban children. Both city and country have problems to meet in providing ideal conditions for participation in the muscular and intellectual activities which
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Developmental Features of Children's Play

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constitute a valuable play life; the city because of limited space; the country lack of playmates and opportunities of play.

Figurelli summarised the results of a study conducted by National Coordinating etc. for the study and development of Filipino children and youth in 1970. He examined the play materials and play activities of 900 2-6 years old Filipino children when age, sex, socio-economic status (SES), type of community and region are considered. Results showed that children's play followed a sequence from solitary to group play. Children preferred older playmates until age 5 when they began preferring playmates in their own age group. Children differed in competitive behaviour by type of region and community rather than by sex SES, SES was a strong variable. Sex identification through war and non-war toys was common in urban areas, and a strong interest in nature was seen in the kinds of toys played with. Aggression of 2-5 years old was not related to toy preference, but it was for 5-6 years olds.

Usuiyama et.al. (1974) studying the interaction process of two children have found that the level of previous activity tended to have positive effects and wood blocks seemed to be the most popular toy and the most facilitating for children's interaction. In an interesting study on the attractiveness of forbidden objects Allen and Allen (1974) found a strong decrease in the attractiveness
of the forbidden toy by preschoolers, but an increase in attractiveness was exhibited by 4th graders. Results suggest that a perceived association between an object's being forbidden and its attractiveness may be learned through the course of socialization. Moosmann Irmgard in 1975 tested the hypothesis that young children would prefer play materials which have a higher arousal value for sensory and motor activity. Assessment of playing activity choice and motivational background among 109 kindergardeners using 9 pairs of toys, confirmed the hypothesis and supported the definition of play as 'an activity performed for its own sake'. Results also revealed a developmental trend in choice behaviour, which was more apparent in girls than boys. In a study of preschooler's responses to varied manipulability of a play object within a free play environment Gramza (1976) found the clear preference for rope with high manipulability.

Wolf in 1976 tried to know the effects of live adult modeled sex inappropriate play behaviour in a naturalistic setting. It was found that females played with the inappropriate toys more than did males. Children were not influenced in their play behaviour by the adult modeling condition. Linford and Linford (1977) computed the validity of the stimulus familiarization effect under varied choice instructive situation for young children. They found that subjects preferred novel toys to play with immediately but
familiar toys to keep permanently. Studying the changes in the play behaviours of preschoolers Rubin and Hrashor (1980) observed the 3 years olds and 4 years olds during free play. Where changes overtime were found to be significant, they were consistent with theoretical predictions and prior cross-sectional research. For both solitary and parallel social play, no significant overall changes were noted.

Vandenberge (1981) tried to find out the developmental features of children's play with objects. They found that subjects 6-7 years of age made more constructions using more of the materials. Subjects 8-10 years of age made fewer, much more extensive constructions and integrated disparate types of materials. Torigoe et.al. in 1982-83 studied on the temporal structure of play behaviour in infants. Results showed that 8 behavioural categories could be classified into two play types - object play and motor play. These two types of play occurred alternatively. Two subjects (1 in day care and 1 at home) did not play actively with things when an adult intervened, but the other two subjects did. Burtchen (1983) proposed an action theoretical approach as an integrative perspective for the research in play - activities. He found three types of action structures that significantly distinguish between the different age groups. Also, there were 3 levels of role competence that accounted for conflict behaviour and cooperation. Billie
Thomas studied in 1984 the early toy preferences of 4 years old readers and non-readers. There were significant differences in the toy preferences of the 2 groups. The early readers played with, enjoyed and valued reading readiness toys, such as books and alphabet cards, significantly more than non-readers, who preferred gross-motor, construction and fantasy toys. Significantly more, results indicate that early readers cannot be differentiated by I.Q. or family demographic information alone and that consistent toy preferences precede the acquisition of early reading.

McGhee-Paul et.al. (1984) conducted two comparative studies - with low SES Black and middle SES White male to find out the effect of level of toy structure on preschool children's pretend play. More frequent pretend behaviour was shown with unstructured toys, but subjects played longer with high structure toys. Unstructured toys were associated with high playing time only when they were presented before high or moderate structure toys. Data were consistent with the notion that children show a greater variety rather than amount of pretend behaviour with unstructured objects. Block (1984) studying on play materials found that although children had few toys or materials designed to promote creative play, they were inventive and able to adapt and use the resources available in their environment.

Nakano in 1984 examined relationships between the 3 major
dimensions of play - play partner, type of instructions and type of play activity - and individual differences within these dimensions. Results showed that for each dimension of play, specific combinations were adaptable to situational demands. Based on individual differences subjects preferences for certain interaction patterns, a developmental model incorporating situation specific changed in dimension combinations and individual differences was proposed.

Yen studied (1985) the preferences of kindergardeners given a choice of 12 toys with 6 different characteristics. Subjects preferred toys that were colorful, mobile, 3 dimensional, sound-generating and realistic. Cornwell and Hobbs (1986) argues that a major cause for the conceptual confusion surrounding the study of children's play is the tendency for writers to emphasize the spontaneity of play, thus distracting attention from the antecedents of playful acts.

Smith and Whitney conducted a study in 1987 on play and associative fluency. Significant differences between objects were found and delayed test results were usually poorer than immediate test results. Failure to find significant condition effects in this study was described to either the lack of ecological study of small-scale experimenter studying of play and/or the lack of a major impact of play on creative and problem solving abilities.
Effects of Sex and Age on Play Development

Sex and age are the important aspects of human development. These play important roles in play also and many studies have been conducted to explain these aspects.

Foster in 1930 observed the play activities of children in the first six grades. It was found that of the outdoor games catching and throwing, chasing and fleeing and hiding and seeking types were most popular with both sexes of all ages; boys showed more interest in catching, throwing games while girls prefer jumping-hopping games. Of the indoor games table games and those involving simple dramatization were popular along with the out-of-door games mentioned, here again boys preferred catching-throwing games, while girls played more at informal dramatization.

Moyer and Gilmer (1956) conducted an experimental study of children's preferences and use of blocks in play. It was found that children's preferences for blocks were not related to age. It was concluded that children's preferences for block shapes and sizes were made on basis of their utility in being combined together for building. Farrell (1957) observed the sex differences in block play in early childhood. He found that 24% of the boys but only 5% of the girls played with blocks. Boys also played with blocks almost twice as long as girls did.

In a study conducted by Hurtig et.al. (1971) it was
observed that sex was a more important determinant of social behaviour than age. Interaction effects were noted. School placement status was a more important factor for girls. Wolf (1973) tried to find out the effects of live modeled sex inappropriate play behaviour in a naturalistic setting. Generally play behaviour with the sex inappropriate toy was promoted following exposure to a same sex model relative to an opposite sex model or no model control group.

Iwanaga (1973) examined interpersonal play structure by naturalistic observation. Findings suggest that the 4 types of structure appear in a sequential progression with a strong relationship between CA and highest level of interpersonal structure attained. Sex differences were found with respect to the amount of the time spent in various types of interpersonal structure at each age, Goltfried and Seay (1974) studied the influences of age and sex on early social behaviour. Results indicate that males and older children engaged more frequently in peer social activity. Wolf again in 1975 studied on influence of age and sex of model on sex-inappropriate play. Results are explained in terms of the possible cross-situational generality of instructions from an adult. Wolf also conducted a study in 1976 to know the effects of live adult modeled sex inappropriate play behaviour in a naturalistic setting. Results show that females played with the inappropriate toys more than did males. Children were not influenced in their play behaviour
by the adult modeling conditions.

Tauber (1979) concluded that family constellation, particularly sex of siblings, turned out to be the dominant factor of determining whether subjects played with toys usually favoured by their own sex or expanded their play to include toys more often chosen by the opposite sex. The results of study of Serbin et al. (1979) indicate that the presence of an opposite sex peer functions as a discriminative stimulus for avoidance of sex-role inappropriate play in preschoolers and suggested that preschoolers may have a history of differential reinforcement for sex typed play in the presence of peers. Serbin et al. (1979) studied on sex stereotyped and non stereotyped introductions of new toys in the pre-school classroom. No significant sex differences in toy choices were found following the non-stereotyped introductions. Following the stereotyped introductions subjects toy choices were consistent with sex-role stereotypes.

Dileo et al. (1979) wanted to know the frequency and modifiability of children's preferences for sex typed toys, games and occupation. Results showed initially high levels of sex-typing in a toy choice task. Liss (1979) examined effect of model's toy preferences on preschoolers sex typed toy selections in 2 experiments. Results imply that despite strong sex-typed preference, children's play can be modified.
Schau et al. in 1980 found that girls played longer with neutral and equally long with feminine and masculine toys; boys played longer with masculine and equally long with feminine and neutral toys. With increasing age, both sexes played longer with feminine toys; no differences were found for masculine neutral toys. Frasher et al. (1980) found that subjects by preferences were as rigidly stereotyped by sex as those of children of previous decades.

Field (1982) studied on same sex preferences of preschool children; an artifact of same age grouping. Data suggests that comparable verbal fluency may be a significant factor in the formation of peer preferences. Children may prefer same-sex children in the same age situation because they are more closely matched on verbal abilities. Eisenberg et al. (1982) researched children's reasoning regarding sex-typed toy choices. Subjects used considerable amount of sex-role oriented thinking to justify their answers regarding other children's likes and dislikes.

Serbin and Sparfkin also worked in 1982 on laboratory and naturalistic observation procedures. Results suggest that normal sex-typed play behavior in a naturalistic setting cannot be accurately predicted relative to their same sex peers by means of laboratory based procedures typically employed in the literature. Halliday and McNaughton (1982) examined sex differences in the preferred play activities of children and the influence of teacher
participation and location of activities on such differences. Sex differences in play generally confirmed to previous research. It was also observed that girls tended to choose activities in which their teachers were involved. Although the presence of female teachers seemed to maintain many of the girls stereotyped choices of activity, this same presence appeared to extend the range of boys' choices beyond activities that were stereotypically male.

McCormack Barbara, L. in 1982 tested the hypothesis that both boys and girls would show more interaction with familiar than unfamiliar peers and supported this hypothesis for younger girls and older boys. O'Brien et al. (1983) observed the sex typed play of toddler's in a day care center. Findings indicate that young children's preferences are no strong that simply providing a variety of toys in not sufficient to encourage diversity in play behaviour.

Karpoe and Olloney (1983) saw the effect of boys' or girls' toys on sex-typed play in preadolescents. Findings were that the selection and use of sex-typed toys influence the masculine or feminine characteristics of children's play. Eisenberg et al. in 1984 studied on sex-typed toy choices. Results support the findings that there is more pressure for males that females to avoid sex-inappropriate activities.

Bradbard and Parkman in 1984 in their study found that males requested a significantly greater proportion of sports equipment and vehicles machines than females, who made signi-
ificantly more requests for doll-house, clothing, jewelry, domestic items, and dolls. Metzler et al. (1985) explored the relationships among childhood activities, masculine and feminine characteristics, and career choices. Results of this study indicate that childhood participation in sex-typed activities was associated with adult personality characteristics of masculinity and femininity and adult role choices and suggests that they reflect consistent life-long patterns.

VanRossum and Timmer in 1985 presented an adaptation of B. G. Rosenberg and B. Sutton-Smith's (1959) "play and games list" to 7, 9, and 11 years old Dutch boys and girls to examine the role of sex typing in game preferences of subjects. Preferences at each age level were not found to be characterized by the sex-typed items. Results are discussed in the context of the development of sex typing and the reasons for particular play and game choices.

**The Effect of Environment on Play-Development**

In an investigation on play activities of school children Ideguchi, N. (1939) found the clear-cut differences of play caused by environment and socio-economic conditions. Greifzu et al. (1942) conducted a study of children of a village. It was found that in a rural environment, the connection between play and work appears particularly close.

Otter Stadt (1962) investigated the play-space of a
suburban children close to a medium size town-children. preferred the natural play ground. Favourite games between 9 and 14 were motion games played in groups not seldom covering an area of several kilometers. Girls generally did not use much play ground space as boys.

Barry (1978) studied on rural aboriginal children and suburban white children. Results indicated that older subjects in both groups were more rigidly stereotyped and that the aboriginal group was less stereotyped than the white group. In a study on crowding and the child play behaviour of preschool children conducted by Blommaert (1979) it was found that the social status of the family was most significant in determining the child's variety of play. There was also a significant relationship between variety of play and the amount of space in the family living room.

Udwin et al. (1981) examined the phenomenon of imaginative play and its concomitants in unstructured play situations among 60 south African and Israeli preschool children of lower and middle class economic status. Results suggest that socio-economic status was the overriding variable in determining the observed levels of imaginative play, and the contention is raised that the deficits in imaginative play among lower class parents to help their children with the integration of the plethora of stimuli that confront them in every day life. It was also found
that a number of the specific home background factors thought to be particularly important for the development of imaginative play are culture-bound.

Mihăilescu (1984) investigated the game preferences of 1000 rural, semiurban and urban Romanian children (age 3-14 years) to examine the relationship of game preferences to such social variables as age, sex and environment. Games with rules were divided into the following categories: recurrent games, recurrent competitive games and competitive games. The frequency of recurrent and recurrent competitive decreased with age, and the frequency of competitive games increased with age. Girls preferred recurrent and recurrent competitive games, while boys preferred competitive games. The frequency of recurrent and recurrent competitive games decreased in the samples of semi-urban and urban females. Comparison of these samples with 2,400 children studied in 1932 point to desexualization of the game repertory of children that corresponds with the 'masculinization' of the game repertory of females.

Naylor (1985) discussed the outdoor play and play equipment. Adventure type playgrounds seemed to be the most popular and successful as they provide children with a range of materials and play opportunities. Quay and Pinbelt (1986) examined the influence of race and socio-economic status on verbal and non-verbal communication in
object-centered and object-free play in 38 black and 38 White preschoolers caged from lower and middle SES backgrounds. Results show that SES, but not race, influenced the subject's ability to integrate verbal communication with object play.

Holdcavell et al. (1986) conducted a cross-cultural comparison of children's behaviour during their first year in a pre-school. Findings reveal differences in "looking around" and "body contact", "talking to somebody" "automani-pulation", and "the number of children playing together". In both culture, subjects preferred the same-age children for social play and same-sex children for parallel play and showed a decline of "interaction with the teacher" and "looking around" over the year. Sex differences were found in both culture for "object conflict".

Child's Development and Play

Low H.R. (1938) investigated how children learn to play at different levels. He found that play is an activity related to the whole life of the child, and is the basis of later interests and good social relationships. It is so closely related to physical, intellectual, social and emotional development that adequate social and material provision should be made. Cassel (1973) discussed the characteristics of gaming and its role in facilitating self insight and social maturity. Gaming activities are useful
outlet for aggression, negativism and resentment.

Wolfgang (1974) described patterns of play and their functions in children. It was found that through play, children move from ego-centerism to social cooperation i.e. from play to work. Dependency, social awareness, hostility, aggression, possession, power, rivalry, and anxiety are all problem areas reflected in an resolved by children's natural dramatic play.

Polling (1976) tried to find out the effects of particular toys on the social play of preschool children. And he found that subject's social play was strongly influenced by the availability of particular play materials. Vendenberg in 1981 discussed the role of play in development from cultural evolutionary and ontogenetic historical perspectives. It was concluded that these perspectives illuminate how play and imitation are important for the developing individual emerging and influencing a changing cultural environment.

Hendrickson et al. (1981) examined the types of social behaviours that normally developing preschool children exhibit while manipulating various toys and materials found in most preschool children. Results indicate that vast majority of all materials were used in the isolate context at one time or another. Myguel M. (1982) tried to find out the interaction between play and development
in terms of the theories of Piaget, psychophysiology and psychoanalysis. It was concluded that through observations of a child's play information about the child's fantasies, conflicts and ego-defense structures can be provided.

Barnett and Kleiber (1982) conducted a study on concomitants of playfulness in early childhood: cognitive abilities and gender. Girls showed a positive relationship between play and divergent thinking and boys showed an inverse, and in some cases, absence of a relationship.

Shmukler (1982-83) examined the course of development of imaginative play predisposition over several years in children. Results indicate that preschool assessments of imaginativeness are related to 3rd grade testing of cognitive and affective variables. Szabo and Shapiro (1983) studied the relationship between the amount of imagination exhibited during free play and the effective use of imagery during learning. There was a significant correlation between imaginative play and correct recognition of paired associated presented side by side both before and after imagery training. I.Q. was uncorrelated with either correct recognitions or imaginative play.

Morrison and Kuhn (1983) studied on cognitive aspects of preschooeler's peer imitation in a play situation. Analysis indicated a link between instances of positively mismatched observation and advances in performance following observation. Vendenberg (1983-84) studied on imaginative, cognition and
personality. Play is seen as the embodiment of the human capacity to wish, a capacity that is necessary for willing and responsible action.

Pellegrini (1984) studied on the social cognitive ecology of preschool classrooms; contextual relations revisited. Adult presence was related to less mature forms of play. Data also indicate that peer presence and adult absence relate to more mature forms of children’s social cognitive play and support Piagetian notions of peer interaction and cognitive development. Somers and Yawbey (1984) conducted a study on imaginary play companions: contributions of creative and intellectual abilities of young children. Research suggests that the belief in imaginary play companions is linked with creative and intellectual growth. The development of sensitivity, elaboration, and originality have been linked with Imaginary Play Companions.

Relief (1984) discussed the advantages of building with blocks for young children and how they can learn about space and spatial relationships from positioning blocks. Developmental changes in the symbolic representation of space with blocks are reviewed: As children mature, they make use of a wider range of spatial forms to represent spatial configurations. Basic configurations (e.g. - on, by, in) with blocks are generally mastered before 4 years of age, after which further spatial elaborations (e.g. enclosure) begin to emerge.
Also emergent at this time are the differentiation of objects within a construction, classification of indoor and outdoor space, and coordination of landmarks.

Connolly and Doyle (1984) examined the relation of social fantasy play to several indices of social competence in preschoolers. Results indicate that the amount and complexity of fantasy play significantly predicted 4 of the competence measures, teachers' ratings of peer social skill popularity, affective role taking and a behavioural summery score reflecting positive-social activity. Fantasy play was also more positive sustained, and group oriented than was non-fantasy play. Caruso (1984) did a study on Infants' play: Implications for child care. Results indicate a relationship between early exploratory play and later imitation and verbal skills, both of which are related to childhood intelligence measures.

Cole and Lavoie (1985) studied on fantasy play and related cognitive development. It was found that both frequency and duration of material and ideational fantasy play increased with age, but the play patterns differed. Material fantasy play followed a curvilinear trend, whereas ideational fantasy play: role taking was negatively correlated with material fantasy and sociodramatic play, ego centrism did not correlate with the play measure. In a study conducted by Christie (1985) it was found that play training is an enjoyable and way of increasing cognitive
development of children.

Rosamilha (1985) tested the hypothesis that play activities improve the verbal and figural fluency of 1st graders. It was found that play activities lead to (1) greater mastery of several aspects of language, (2) more refined metalinguistic awareness and (3) an ability on the part of children to access thoughts and images.

Nagraja (1986) discusses play as one of the media through which a child develops in a healthy way, and considers way in which play posters positive mental health. Play allows a child to be him/herself and to express interests fully.

Moran (1986-87) studied on some functions of play and playfulness. He has suggested that parents can use playfulness to ease the demands of the reality principle and the harshness of the child's introjects. The child may use play to sake before parents, and it is noted that parental attitudes toward the child's fantasy play may facilitate or impede harmony between psychic structures before the establishment of the repression barrier. The enjoyment of play is seen as a consequence secondary to avoiding unpleasure and is linked to an experience of mutuality.

Isenberg and Quisenbury (1988) in their study delineate the necessity of play from infancy through adolescence and
affirm its centrality in the lives of children. The characteristics of play are defined and its contribution to physical, psychosocial, and cognitive development are described. Parents, teachers and administrators are urged to understand the contributions, play makes to development to ensure that all children experience a balance of play and non-play activities. Typical play behaviours of different ages are also described. Principles and practices for the encouragement of play are proposed.

Attempts to Measure Play-Behaviour

Wolfgang and Pheeps (1983) attempted to design an inventory that assess preschoolers preference for play materials, using the categories of play defined by selecting play materials and toys that would permit the broadest scope in assessing the preferences of pre-schoolers. Subjects preferred the category of sensorimotor play most, followed by symbolic play fluid construction, structured construction and letters and numbers. It is noted that at age 4 years which is the mid point in the preschool years these subjects' preferences appeared to follow the theoretical literature of performance, being nearly equally divided between sensorimotor, symbol and construction. The division of preference came with the category of construction fluids and structured construction were almost equally preferred by subjects.
Coury and Wolfgang (1984) presented an overview of the measurement methods of toy and play preferences studies. It is contended that listings of individual toys and play items should be grouped into categories with similar characteristics and that these categories should be drawn from available play theories such as those proposed by Piaget and E.H. Erikson.

Saracho (1984) made an attempt of construction and validation of the Play Rating Scale. He described the development of Play Rating Scale that consists of 4 subscale corresponding to 4 forms of play including physical, black, manipulative and dramatic play. In each area, 4 types of play behaviours are observed: frequency of play in that area, ability and creativity to communicate ideas, social levels of participation in play and the capability to lead. It was found that subjects played in the different play areas and respondent to all of the play behaviours described in the different items of the PRS. Findings confirm the validity and reliability of the PRS.

Lovell and Harms (1985) discussed the importance of outdoor play in children's development and learning and presents suggestions for equipment and design of school playgrounds.