THE EFFECTS OF EDUCATION-ORIENTED AND MAINTENANCE-ORIENTED PRESCHOOLS ON CHILDREN'S DEVELOPMENT

by

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To Esra and Emin

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TABLE OF CONTENTS

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LIST OF TABLES

LIST OF APPENDICES

ABSTRACT

The present study was conducted to investigate the comparative effects of custodial and educational preschool centers on some aspects of cognitive, social and emotional development of three and five year old children from low SES families.

Three maintenance-oriented and three education-oriented preschool centers were used. A total of 119 subjects, half from maintenance-oriented and half from education-oriented preschools, matched for age and sex, were used as subjects.

Each child's play during the free play sessions was observed for a ten minute sample on five occasions.

Parten gradient of social participation was used to assess social participation and Tizard scale of Complexity of play organization was used to assess complexity of Behaviour. Autonomy was measured by seven items which rated children for the autonomy and initiative they showed.

The attainment of each child in social participation, complexity of behaviour and autonomy dimensions was also assessed through interviews with the mothers.

It was hypothesized that there would be differences in the total social participation, complexity of behaviour, and autonomy scores of subjects attending preschool centers with different orientations in favor of education oriented preschools. It was also predicted that there would be age differences in these dimensions.

The results revealed that children attending educationaly oriented preschool centers obtained significantly higher scores in complexity of behaviour and social participation dimensions supporting the hypotheses. However no significant differences were found in autonomy dimension. Age related changes on these measured aspects of cognitive, social and emotional development were significant in the expected direction.

The results indicated that the type of preschool center attended affects cognitive and social development and supported the notion of positive effects of education-oriented preschool care.

I. INTRODUCTION

Trends towards urbanization accompanied by a shift away from the extended family towards the nuclear family, changes in the position of the mother with entry of mothers into the labour force, increased awareness in early 1960's that early childhood education is an important developmental period have all led to the emergence of day-care. Maternal employment contributed as a chief factor to the expansion of day care as an important setting in which parents place young children. In fact for many children this setting is second in importance only to that of the home, as nursery school years are the most important for subsequent development and the differences found in later adult years are established in these years.

The importance of early years for development has long been realized mainly after the writings of Bloom (1964) whose work suggested that the major portion of the variance in adult intellectual achievement was accounted for by age five. Later, many studies indicated the "staggering rate" at which the preschool child acquires skills and knowledge about the

early years" (Bruner, 1972, p.133). Since the most rapid changes in development occur during the first five years of life much concern has been expressed about the child's early experiences and environmental influences in depressing or enhancing his development in various areas. However the early deterministic aspect of early experience must not be over-emphasized as the apparent continuity often found in development can frequently be explained in terms of continuing environmental circumstances (Brim and Kagan, 1980; Kagan and Moss, 1983; Kagan, 1980; Clarke and Clarke, 1976, cited in Smith and Connolly, 1980). Nevertheless, some changes in early experience may be accomplished more readily than changes later on.

The milieu in which development occurs, the experiences and opportunities it provides for learning influences that development. So the quality of children's experiences with the environment are crucially important for development; because "human system is an open system" (Rand, 1982, p.61) and is thus subject to environmental influences and sensitive to context variations as young as eighteen months (Fein, 1975). Even at this age behavioral intercorrelations are related to the features of the social context. This implies that different environments foster different patterns of behaviour. So it can be concluded that the childrearing environments can contain or lack the elements crucial to supporting children's optimal development and thus foster different patterns of

behaviour. In this respect the contributions of the nursery school environment as a predominant childrearing environment is only second in importance to that of the home.

There is evidence that nursery school attendance affects cognitive and social development of children and their behaviour in school settings (O'Connor, 1975). However a very important variable that mediates development in such areas is the kind of day-care setting that the child attends, because the quality and the type of day-care, the nature of children's experiences, the presence or absence of an educational program etc... all affect preschool outcomes. There is as much variability in day-care environments and experiences as there is among home environments and experiences. So generalizing on effects of day-care along the lines of absence-presence is not of much utility. Most attempts at analyzing and interpreting the effects of day-care have considered it as a global variable (absence-presence) and/or assessed developmental outcomes without regard to the proporties of the physical and social setting in which assessment was made.

The present study which is a substudy of the COMPREHENSIVE PRESCHOOL EDUCATION PROJECT conducted by a team in the Department of Psychology (Director: Prof.Dr.Çiğdem Kâğıtçıbaşı) of Boğaziçi University aims to investigate the cognitive, social and emotional development of three and five year old children from low SES families living in shanty

town areas who attend preschools, with specified, different institutional aims. An assesment of children's complexity of behaviour, social participation and autonomy attempts to find out the comparative effects of custodial and educational preschool centers as these settings provide distinct environments and foster different behaviour patterns.

A. GOALS OF PRESCHOOL EDUCATION

"Preschool is an educational facility under the supervision of trained teachers where young children engage in their first group experience away from home before entering primary school." (Woodhead, 1980, cited in Bekman, 1982). However there are many patterns of preschool organization. Preschools differ in the amount of provision, number of caregivers, caregiver-child interactions, presence or absence of an educational program, functions and goals (Halpern, 1982).

There is a diverse outlook on the goals of eary education. Some authorities concentrate on long-range goals that are more general and abstract. One such goal whose importance for early childhood education is consensually validated is the worthy "aim of education for development of maximum individual potential" (Evans, 1975). Other related and commonly expressed long range goals include independence in judgement, critical thinking ability, personal ability, personal initiative and responsibility, self-respect and respect for the rights and properties of others.

Kohlberg and Mayer (1972) concentrate more on long range goals. They are among the theorists who view development as the aim of education and they advocate that the cognitive developmental theory and progressivisim advanced by Dewey (1916) serve as the sources of educational goals (cited in

Evans, 1975). Spodek (1970, cited in Evans, 1975) suggests that the basic goal of early childhood education is the promotion of personal autonomy based on reason.

Other views concentrate more on short-range goals. For example, Smilansky and Smilansky (1970, cited in Evans, 1975) view early childhood education as preparation for scholastic success. Hunt believes that the goal of early childhood education is to provide the children who enter school without the necessary knowledge and skills required to cope effectively with school with such knowledge and skills (Hunt, 1982).

According to Cronbach (1969, cited in Evans, 1975) the problem of lack of consensus about the goals of early education is due to confusion among educators about helpfullness of the two basic orientations - construction of an "optimal maintenance environment" or the creation of a "special intervention environment". However such extreme views appears questionable, because early education is beneficial for all children, not only to offset any disadvantages in their background, but because by the age of three or four they are ready for planned fostering of their development (NEA Journal, 1966). The objectives of preschools in these years must concern promoting development in four major areas, namely, intellectual, emotional, social and physical. However unfortunately, the programs of child development and childcar seem to have moved along two separate tracks despite their

obvious overlap (Myers, 1981). These two programs provide very different types of nursery provisions and nursery environments. Especially programs which are set up to respond to family needs emphasize the custodial dimension of care more often. In such programs of childcare, whether optimal child development occurs is a minor consideration.

Bronfenbrenner (1977) specifies the properties of environments that foster the process of human development. The first two of the propositions he sets forth cover eary childhood years and just refer to two types of complementary conditions that must occur within settings, for development to take place. Preschool environment, being a predominant childrearing environment, is a very important context for the psychosocial development of children.

Proposition I

A primary developmental context is one in which the child can observe and engage in ongoing patterns of progressively more complex activity jointly with or under the direct guidance of persons who possess knowledge and skills not yet acquired by the child, and with whom the child has developed a positive emotional relationship.

Proposition II

A secondary developmental context is one in which the

child is given opportunity, resources and encouragement to engage in the activities he has learned in primary developmental context, but now without the active involvement or direct guidence of another person possessing knowledge and skill beyond the levels acquired by the child (Bronfenbrenner, 1979, p.4). It can be predicted that many nursery school settings would fall short of meeting either of these requirements. As environments affect course of development, especially in the first four or five years - which is the period of most rapid growth in physical and mental characteristics and of greatest succeptibility to environmental influences - a long term goal of early childhood education should be the provision of nursery school settings that meet the criteria stipulated in propositions I and II.

Similar views are expressed by Halpern (1982). He indicates that psychosocial development and well being is a function of environment. He asserts that "children experience psychosocial well-being to the extent that they can successfully evoke from the environment and have provided by the environment those experiences that allow them to achieve their own intentions, meet their own developmental needs and satisfy socially defined expectations" (Halpern, 1982, p.2).

So preschool environments should permit children to create for themselves intellectually and socially valuable experiences and also provide them with such experiences. The preschool education must offer children experiences adapted

to their growth needs, that is they must provide children with the appropriate experiences at the right time. All preschool services must meet the child's basic physical needs, needs for care, play and educational experience.

It will be clear from the foregoing that the nursery school, while meeting its multipurpose aim, should be designed so as to facilitate and promote development in four major areas-intellectual, emotional, social and physical.

The intellectual goals include, the promotion of curiosity, development of language and a generation of a general readiness for the intellectual activities that will follow in later years (NEA journal, 1966). They also include the development of the ability of handling concepts, perceiving, conceptualizing, discrimination, classification, observing and listening (Schermann, 1968).

A child needs to have experiences in counting, classification and serial ordering. She also needs activities and games for development of creative thought. Teacher guidance and carefully selected material can nurture a child's curioisty and aid his/her language development (Schermann, 1968). The kinds of cognitive abilities enhanced through preschooling must be useful in th child's everyday life, in the present and the likely future (Halpern, 1982). One more contribution that early childhood education can make to a child's intellectual development is

the enlargement of his span of experiences by providing a skilled guidance under which the child can make new contacts with the world, see new possibilities and learn new things.

The emotional goals of preschool education include the promotion of children's sense of security and self respect (NEA Journal, 1966). The nursery school should provide the child with experiences which frequently give him a sense of accomplishment, a sense that he can learn by himself and do things by himself and also that he can help others. A child should experience success, accomplishment and achievement. He should find school a congenial place (NEA Journal, 1966) and feel respected and valued. Early experience that provide such positive feelings lay the grounds for and enhance a healthy emotional development.

In the domain of social development, early education seeks development of the child's relations with other children and adults. It aims to teach a child to balance his egocentricity with a concern for and responsibility towards others rights as well as his own (NEA Journal, 1966). In this domain early education aims to enhance the child's interpersonal relations by allowing him and exposing him to a variety of social interactions with children and adults.

The fourth major area that early childhood education should devote considerable attention to and improve is the child's physical well-being and development (NEA Journal,

1966). Nursery programs should provide children with necessary physical activities, exercises and play materials that foster their physical growth and well-being.

B. CONCEPTUAL BACKGROUND ON CHILD DEVELOPMENT

a) DEVELOPMENT OF COMPLEXITY: COGNITIVE GROWTH AS HIERARCHICAL ORGANIZATION

The purpose of this section is to show that behavioral complexity is a measure of cognitive level and that it follows a developmental pattern. The appearance of more complex levels of behaviour reflect successive levels of cognitive complexity, as it requires the inclusion of more constituents more interrelationships and intellectual application of a sequencing rule.

i. Skill theory of cognitive competence

Carey (1974) believes that a theory of the acquisition of motor skills provides, the basic outlines of a theory of the acquisition of particular cognitive achievements and shows that a theory of skill can be applied to congitive competence in investigating the development of conservation of quantity. Carey claims that "making conservation judgements and justifications is a skill whose constituents are separable sources of relevant information in the task analysis (Carey, 1974, p.181).

If conservation-which is without doubt a cognitive achievement-is a skill and is analyzable in terms of a skill model of cognitive competence, then it seems likely that such

a model will also provide the relevant framework for the analysis of the complexity of young children's play behaviour. For this reason, Elliott and Connolly's (Elliott and Connolly, 1974) theory of skill acquisition will be very briefly reviewed, and how it can be used in analysis of more complex behaviours like those seen in children's play activities will be discussed, since "a modular theory of skill enables performance to be described in terms of relations between acts (Elliott and Connolly, 1974, p.166).

Elliott and Connolly define skill as "an ability to achieve defined goals with an efficiency beyond that of the inexperienced person" (1974, p.135). The definition connotes that skill entails an ability, a competence. And competence implies action. So when one talks about competence then "operative intelligence" of "knowing how" to do things rather then simply "knowing that" is the issue (Connolly and Bruner, 1974). According to Connolly and Bruner competence basicly involves the ability to select features from the environment that provide information for the elaboration of an action (schema formation), initiating the sequence of movements, activities to reach a goal that has been set and utilization of what has been learned in the formulation of new plans. So skills are thought of as entailing a <u>program of events</u> directed at a goal.

The basic unit of skilled performance are subroutines. The performance of a subroutine (act) is necessary but not

sufficient for more complex hierarchically organized sequence of subroutines and a correctly organized sequence of actions constitutes a skill (Connolly and Bruner, 1974). Therefore, during the acquisition of a skill, a learner first develops discrete responses then these are perfected through practice and consolidated and inserted into new patterns. Such practiced patterns may then become new constituents and form the base for the further emergence of higher and higher levels of integration and organization of responses. So skills are analyzable into their constituents and in the performance of a skill the combination of the constituents is what is important.

ii. Importance of "organization" in development of Complexity

As is evident from the above reviewed theory, a central problem in the study of behaviour concerns its organization (Elliott and Connolly, 1974; Lashley (1975, cited in Elliott and Connolly et al., 1974) also draws attention to the importance of considering the organization or syntax of sequentially occuring acts. Since such sequentially occuring acts are not intrinsicially determined the concept of control becomes relevant and logically leads to the acceptance of a representational model in the mind (Elliott and Connolly, 1974). And representation is seen as an important aspect of cognitive growth by long-range theorists of early cognitive development

like Bruner (1967) and Piaget who maintain that cognitive growth depends on a process of model formation, formation of representational models in the mind.

Lewin (1982) in a recent research that is still in progress attempted to identify a universal set of rules and constraints for children's activities. Lewin claims that, beyond the surface quality of children's activities that may only be reflective of physical and social surroundings, there exists a hidden deep set of constraining rules, "a grammar of activity" which are universal and independent of ethnic, social and economic backgrounds. Bruner in 1973 (cited in Halpern, 1982) also had noted a commonality of child development outcomes versus the particularity of manifest abilities. According to Bruner, in all situations a child first learns the elements in order to achieve his intentions or to be able to reach his goals. Then he slowly begins organizing this experience so that it can finally be used in new situations.

With this same claim various activities of kindergarten children who belonged to different strata of Israeli population were recorded and analyzed, by Lewin (1982) and he identified 3 stages. (1) the first stage was "doing with" and "to objects" in order to find out what the objects, tool was. (2) In the second stage the children tried to explore" what they could do with" the different materials and it was at this stage that the first significant combinations, like

combinations of pieces of equipment, combination of objects, combination of acts, combination of words, sentences and deeds occurred and (3) in the third stage "skillfull, effective and purposeful handling" of objects and ideas to achieve a goal or to carry out experiments could be found (Lewin, 1982). Lewin reports the results of the observations of the study center as follows: "... we can detect a hierarchical complexity unfolding which is the same in sequence and order in all the different activities and populations we observed. It is possible to define the structures of activities as a sequence of combinations - a syntax-..." "It might be possible to see development... as development of ever more complex combinations. This same schema of development is observable in the child's development of competent behaviour. The hierarchical complexity appears in the form of organization of materials, objects, and concepts the child uses" (Lewin, 1982, p.358).

From the foregoing, it seems that, the hiearchical structure evident in the development of motor skills is also evident in the development of more complex behaviours (e.g. play behaviours) where structure can be defined as the sequential organization of combinations. The form of organization which requires the use of internal cognitive constructs is evident in the complexity of observed behaviours. In this view, cognitive development is achieved

by the emergence of higher and higher levels of integration and organization.

This theoretical perspective allows us to assess performance in terms of relations between acts, without the limitation and bias of standardized tests. Although long range theories of early cognitive development (eg. Piaget, Bruner) maintained that cognition begins in action and stress the importance of action very frequently. Sugarman (1975) claims that most of the research that has been conducted attempted to infer the child's cognitive status from his verbal output. The above mentioned theory of cognitive development provides the necessary support, validation and background for assessing the cognitive levels of different sorts of play activities of children, which is a most obvious body of spontaneous cognitive activity that has universal occurence.

The use of internal cognitive constructs to organize information can appear in modes of relating to social groups or in modes of relating to particular tasks (Halpern, 1982). Complexity of cognition is found in the social domain in rules, roles etc. and in task-related activities (ie, the activities at the sand or water table, block building etc.) and in both of the domains it follows a developmental pattern.

iii. The cognitive aspect of "play"

The cognitive significance of children's play and its developmental nature has long been realized. Parten's (1933) classic work indicates that the social play behaviour of children follows a developmental pattern where there is a move from more simple to more complex social play as the child matures. However, Parten only defines criteria for measuring the social aspect of children's play and does not regard its cognitive significance.

It has been the work of Buhler which has led play research to the cognitive dimension. Buhler (1951, cited in Tizard, Philips and Plewis, 1976) regarded the cognitive aspect of play by describing many cognitive levels involved in the child's use of play materials and noted their relation to the child's level of development. Then the pioneering work in the area was done by Lunzer (1959). Lunzer, from a course of detailed observations in nursery schools and experimental situations, reported that there was a positive relationship between play maturity and intelligence and more importantly he found that the best measure of play maturity was the degree of organization revealed in a child's play.

Piaget (1962) extended Buhler's work by developing cognitive play hierarchies and by pointing out the developmental nature of play. He classified three successive stages in childern's play, according to the degree to which play

remains purely sensorimotor or has some bearing on thought itself (cited in Rubin, Maioni, and Hornung, 1976). Acoordingly, Piaget labelled the progressive stages of play as 1) sensorimotor play 2) symbolic or representational play and 3) games with rules (cited in Bekman, 1982). Smilansky (1968) elaborated Piaget's categories and described a series of four cognitive play categories that children pass through as they develop. Her four types of play categories that are thought of as developing in relatively fixed sequence are: 1) functional play, 2) constructive play, 3) dramatic play and 4) games with rules (cited in Rubin, Maioni and Hornung, 1976). However, these cognitive play hierarchies are designed in a way so as to fit Piaget's cognitive developmental theory.

Rubin and Maioni (1975) using Smilansky's play categories found that play preferences were strongly related to cognitive competence. They found that the incidence of dramatic play was correlated positively with spatial relational and classification skills while the frequency of functional play was related negatively to performance on these cognitive measures (cited in Rubin, Maioni and Hornung, 1976; Rubin, Watson and Jambor, 1978).

Rubin, Maioni and Hornung tried to discover the relation between the social play hierarchies of Parten (1933) and cognitive play schemes of Smilansky. They thus investigated the cognitive play behaviour children engage in during solitary, parallel, associative and cooperative play and found

a close relationship between Parten and Piaget hierarchies (Rubin, Maioni and Hornung, 1976).

However, all these above cited research are limited in the sense that they do not involve assessment of the cognitive level of different kinds of play activities.

iv. Cognitive level as behavioral complexity

The first attempt to construct a scale that can measure the cognitive level of any play activity is the work of Barker, Dembo and Lewin (1941). Barker et.al. while trying to show the effect of frustration on the level of play, developed a general scale to assess the level of organization of play activities. "They argued that developmentally there was an increase both in the number and heterogeneity of the elements making up the play activity and in the degree to which they were integrated under one purpose" (Tizard, Philips and Plewis, 1976, p.253). So, in the infant, play is composed of repetitive movements which appear aimless because they are not organized to an end. As the child grows, his/her behaviour becomes organized, and thus the child is able to perform simple tasks and later the child is able to integrate a variety of activities under a "governing purpose or even a hierarchy of purposes" (Tizard, Philps and Plewis, 1976).

In Lunzer's approach, based on the above mentioned work of Barker, Dembo and Lewin, there is a real attempt to

formulate a general scale of play development applicable to a variety of materials and in which the organizational aspect of behaviour is stressed (Lunzer, 1959). Also, based on Buhler's notion that during development children proceed from using play materials in a non-specific way to exploiting the specific properties of materials (cited in Tizard, Philps, and Plewis, 1976) Lunzer developed a 9-point scale in which the main criterion for assessment was the organization of behaviour (Lunzer, 1959).

Tizard et.al. (1976) extended and elaborated Lunzer's categories under two main headings, the use which children make of materials and the complexity of their games. The categories in the dimension of "Use of Materials" do not form a scale but refer to alternative forms of play. The more important contribution of Tizard et.al. (1976) is the construction of a scale of Complexity of Play Organization which is a measure that can be used to assess cognitive aspects of a wide range of children's play. Tizard et.al. have assessed the complexity of play organization according to the number of different activities linked in one game and the coherence with which they are organized. In this current study this scale of complexity is used.

It can be expected in the near future that Lewin's study (Lewin, 1982) will further extend and elaborate the Tizard et.al. (1976) study, in terms of methodology and findings.

b) DEVELOPMENT OF SOCIAL BEHAVIOUR IN YOUNG CHILDREN: THEORY AND RESEARCH

i. Early Forms of Social Behaviour

The smiling response of infants is one of the earliest forms of social behaviour. Mary Cover Jones in 1924 (cited in Kilgore, 1980) investigated the smiling responses of infants and concluded that smiling in response to visual and auditory stimulation developed about the end of the second month. Then Wolff (1963, cited in Kilgore, 1980) found that as early as the first weeks, vocalizations and facial movements elicit smiling response more readily than nonsocial stimuli. And more recently Fantz (1963, cited in Kilgore, 1980) found that babies as young as 10hr-5 days spend more time looking at face patterns than to other stimuli, although they don't actually differentiate social and non-social stimuli until two months.

Bell and Ainsworth (1972) commented on the power of crying to promote proximity and considered it as a very potent form of social behaviour (cited in Kilgore, 1980).

Brazelton (1976) after observing newborn infants concluded that the newborn, directly after birth, is capable of several significant types of behaviour, such as turning toward the sound of a human voice, attending to the pitch of a female voice over another tonal pitch, stopping an activity like sucking only when confronted with human voice sounds, following a complete picture of a human face but not

following scramble pictures (cited in Damon, 1983).

Lamb (1977) after a thorough review of infant research concluded: "There is thus experimental support for the hypothesis that infants are born with a predisposition toward social interaction" (quoted in Kilgore, 1980).

ii. Effects of the Family on Social Development of Children

The family has the first and most powerful influence on the social development of the infant. Much research in the area of social development has emphasized the potent effects of the family on social development. Dinkmeyer (1965) indicated his belief about the powerful nature of the family by pointing to the fact that the child first observes human relations in the home and believes for a time that all human beings relate to each other in that way (cited in Kilgore, 1980).

Parents are very important for the development of social competence of their children; because they can serve as a secure base from which the infant can explore. Rheingold and Eckerman (1970) observed ten month-old infants in an unfamiliar setting and found that the infants crept throughout the house and explored the setting without any signs of stress and returned to their mothers with facial and vocal expressions that indicated pleasure (cited in Kilgore, 1980).

Halpern also commented on the importance of the availability of consistent, active caretaking and asserted that it contributed to establishment of a secure emotional base from which a child can test his developing skills, use his existing skills and master new tasks (Halpern, 1982).

Parents, also, determine the complexity of the social environment of their children. Lamb claims that the greater the number of people in regular contact with the child, the more likely the child is to "expand its competence through experience in interacting with a variety of individuals each having distinctive personality style and personality" (quoted in Kilgore, 1980, p.26). And Soumi (1974) found that an infant monkey develops more socially competent and sophisticated behaviour if its rearing environment is socially complex (cited in Kilgore, 1980). Thus supplying children with a socially rich environment is of crucial importance for the development of social competence. Lewis and others (1975) suggested that the social world of home-reared infants may have been restricted by parents. They found that no more than 20 percent of middle class American parents provided their infants with frequent peer experience (cited in Damon, 1983).

Waldrop and Halverson (1975) also pointing to the importance of providing children with a socially rich environment, discovered that "the children who at age 2 1/2 were friendly, involved with their peers and able to cope

with agressive peers were likely at age 7 1/2 to spend many hours outside school with peers, to be socially at ease, and to be the ones who decided with whom they would play and what they would play" (quoted in Kilgore, 1980, p.28).

Finally, parents, also help mold the social characteristics of their children by their attitudes and practices. Symonds after analyzing the detailed case histoires of 31 accepted and 31 rejected children concluded that accepted children show extremely desirable social characteristics while rejected children demand attention, are restless, antisocial and show delinquent trends (cited a Kilgore, 1980).

iii. Peer Interaction and Social Development

The Early Studies

Peers also play a vital role in the social development of each other. All observers agree that infants don't show much interest in each other, even don't recognize the presence of one another (Buhler, 1933) during the first 6 months of life. Buhler (1933) asserts that active interaction among infants begins at 6 months "the six month-old baby begins actively to look around and actively attract another baby's attention. He touches him, making cooing sounds and interferes with his activities" (quoted in Kilgore, 1980).

Similar to Buhler's assertion Bridges (1933) states that between six and nine months infants show a more

particularized interest in peers, that they smile to each other's vocalizations and follow one another around rooms (cited in Damon, 1983).

In contrast, Maudry and Nekula (1939) assert that active interaction between infants begins much later than 6 or 9 months. The experiment of Maudry and Nekula is one of the most comprehensive early studies which investigate the social interactions between children under 2 years of age. In their experiment, conducted in a foundling home, pairs of children 6 to 25 months of age were placed together in a playpen. Various toys were put in the playpen during the course of the experiment and sometimes each child was given a toy and sometimes only one toy was provided for the two children and sometimes the children were left alone together with no toys. From their observations Maudry and Nekula concluded that the infants between 6 and 8 months of age were not able to distinguish between each other and inanimate objects and thus regarded their partners as play materials. Later, children from nine to thirteen months treated each other as obstacles to play materials. These babies were interested in toys and reacted negatively to the other baby in the playpen. However negative reaction was not present when there were no toys in the playpen. Fighting, was found to be at a maximum at this stage and stemmed from one child viewing the other as an obstacle to the acquisition of play material. The period between fourteen to eighteen months

appeared to be a transitional phase, where play material was still the major concern but peer interaction increased and became more positive in nature. It was only around the age of two-between 19 to 25 months-that children viewed each other as social partners, playmates. In this period children were more interested in their partners than in the experimental materials. Social interactions were usually positive regardless of the availability or lack of toys, and there was a steady increase in cooperative play (cited in Fein, 1978, Eckerman, et al, 1975).

Later Studies

Mueller and Vandell (1978, citedin Damon, 1983) in line with the empirical findings suggested by Buhler (1933) and Bridges (1933) supported the assumption that social interaction among infant peers don't begin before 6 months. Mueller and Vandell observed that two, three months old infants looked at and touched each other in a manner that they used to explore any novel object. Similary Vincze (1971) claimed that infants engage in peer behaviours that is truly social at nine months and that only at this point infants began offering and taking objects from one another (cited in Damon, 1983).

However in contrast to the earlier findings of Maudry and Nekula (1939) who characterized the infants between age 9-13 months as treating each other as obstacles to play

material and found high levels of fighting at this stage, Eckerman, Whatley and Kutz (1975) subsequently found congenial behaviour during this same age interval. The researchers attributed the differences in results between their study and the Maudry and Nekula study to methodological differences and to the differences in population.

Eckerman and Whatley also found that infants as young as 10 months of age were attentive and responsive to unfamiliar children of the same age and they found no support for Maudry and Nekula's claim that a shift occured during the second year of life from a focus upon toys to a focus upon peers. So at ten months infants are attentive and responsive to each other and engage in truly social behaviour. Soon after infants play primitive games like run and chase or peek -a-boo (Eckerman and Whatley, 1977) and by the second year of life infants take turns with one another in play. They intentionally initate each other's behaviour and even engage in short conversations although it is not always an intelligible language (Eckerman, Whatley and Kutz, 1975).

Rubinstein and Howes (1976) studied infants from 10 months to two years of age in a natural home environment which included both the mother of that infant and another infant and found that the infants preferred playing with their peers rather than with their mothers. The above reviewed studies show the social potential of infant peer relations.

iv. Age Differences and Measurement of Social Participation

Parten (1933) studied the free play behaviours of fourty-two nursery school children between the ages of two to five and distinguished six sequential social participation categories that were evident in children's play. Parten ordered these categories in a "scale of social participation" in terms of increased complexity representing more advanced type of interactive behaviours (cited in Damon, 1983). Parten found a strong correlation (r=.61) between her social participation scale and the age of her subjects which implied that as the child grew older and as his verbal and physical skills improved, she became more involved in social interaction and played in modes of more advanced categories of social participation (cited in Damon, 1983).

v) SES Differences in Social Participation

Rubin, Maioni and Hornung found social class differences in the free play behaviours of preschoolers. They found that "the incidence of paralel play was greater in lower class children while associative and cooperative play appeared less among this group than among middle class preschoolers" and that the "advantaged preschoolers spent a greater proportion of their free play time in social cooperative activities with peers than did disadvantaged preschoolers (Rubin, Maioni and Hornung, 1976, p.147).

In summary, the literature reviewed in this section suggests that the infants at birth or shortly after birth are capable of several socially significant types of behaviour; that parents serve a vital function for the social development of their children; that peer interaction plays a fundamental role in the same process; that sociability increases with age and that socioeconomic status has a bearing on the development of social participation.

c) DEVELOPMENT OF AUTONOMY IN YOUNG CHILDREN: THEORY AND RESEARCH

i. Psychosocial Development: Theory

The progress of the invidual's social and emotional development has been most elegantly outlined by Erik Erikson (1950). His developmental theory emphasizes the importance of the child's social environment in development. Erikson describes the growing child's changing relationship to society as a series of eight consecutive psychosocial stages. The first stage includes infancy, the second and third stages cover the early childhood years. At each new stage, the person encounters the specific problems belonging to each period. Thus, at every phase, he is faced with a new social conflict - "crisis" - that he must resolve. The nuclear conflicts of infancy and early childhood are trust versus mistrust, autonomy versus shame and doubt, and initiative versus guilt. Within the framework of this study it is the second and third stages that are crucial for the development of autonomy, so only those two stages will be reviewed briefly.

The second stage occurs between the ages of 18 months and 4 years (Maier, 1965). The dominant crisis of this stage is autonomy versus shame and doubt. The crisis of this stage is played out in the process of toilet training and through gaining control over when to "hold or" or "let go" of the feces, the child first experiences the possibility of

autonomy, free will (Damon, 1983). It is at this stage that the child starts to discover that his behaviour is his own and recognize that he can execute some of the behaviour he intends and thus gradually develops a sense of autonomy. However, simultaneously, his remaining dependency (physical, social and psychological) creates a sense of doubt about his capacity and his freedom to assert his autonomy (Maier, 1965). So the general theme is the notion of self-regulation versus regulation by others. The conflict here has to do with the assertion of will or submission to control by others (usually parents) and toilet training reflects the conflicts of this phase. As in all psychological crises, environmental support is critical for successful resolution of this stage and the "matter of mutual regulation between adult and child faces its severest test" (Erikson, 1968 quoted in Damon, 1983, p. 222) in this stage. If the outer control is too rigid or too early the child will loose faith in his own ability and shame and doubt will result from an inability to meet parental expectations and an inability to be assertive whereas a tolerant firmness of the parents will lead to a sense of autonomy which is the outcome of self-control and assertion.

The next childhood crisis begins at the end of three years and lasts until the school age (Damon, 1983). The crisis of this stage is the battle between initiative and guilt. At this stage, the child's increased mobility, enables him to establish a wider, physical environment, and

his use of language permits him to expand his imagination and social environment. With this increasing exploration of the environment, the child has to develop a sense of initiative with respect to his behaviour, because now he is not only autonomous but is also responsible for initiating behaviour in different spheres (Le François, 1977).

ii. Parental Practices

As is evident from the above discussion the child's social development is heavily influenced by the attitudes and practices of the family. Parental attitudes toward the child's early independent, self-reliant responses to a large extent determine how easy and rapidly he progresses in the direction of independence and autonomy (Mussen and Congar, 1965). However, family dynamics and contexts of child socialization cannot and should not be studied without reference to the larger sociocultural context, because a family is affected by culture (Kâğıtçıbaşı, 1985a). Studies that have dealt with social development of children have been mostly concerned with childrearing practices and their behavioral outcomes and emphasized parents as the main spheres of influence, studying socialization mainly within the context of the family. Kâğıtçıbaşı (1985b) claims that this emphasis resulted from a tendency to conceptualize the family in the form of the Western nuclear family and criticizes this individualistic orientation in socialization,

because total culture context of development affects socialization. Therefore, a number of antecedent variables in combination and interaction with one another have to be taken into account (Kâğıtçıbaşı, 1985b. p.4). Furthermore some relationships hold only within specific sociocultural settings. An example of findings that seem likely to be culturally specific are those in support of a general syndrome of "authoritarianism" (Kâğıtçıbaşı, 1970, p.444). Bearing these limitations in mind, some dimensions of parental practices that seem important for the development of children will be briefly reviwed.

Coopersmith (1967) emphasizes four dimensions. The first dimension is acceptance, the second permissiveness, the third democratic practices and the fourth dimension is independence. Acceptance refers to attitudes of love and approval and an insistent and consistent expression of value and regard that parents show to their children unconditionally. On the contrary, rejecting parents are hostile, cold and disapproving of their children and regard them as an intrusive, valueless or even a negative object (Coopersmith, 1967). Coopersmith argues that instead of an unmixed, unlimited state of love, support and approval, a more moderate acceptance, marked by appropriate reaction to the child's behaviour has more favourable consequences for the child's social development.

Permissiveness refers to the "demands and firmness of

management procedures employed by parents in regulating and satisfying the requirements of their children" (Coopersmith, 1967, p.183)[1]. So one aspect of permissiveness is strictness of training, the second is the parental demands that children meet and the third is the consistency with which rules are enforced and violations punished. Coopersmith argues that strict training and high parental demands produce more enhancing effects. Although the practice of such permissive parents are firm, clear and demanding, they are not rigid, inflexible and very restrictive. Such parents don't use negative techniques of control (physical punishment, isolation, withdrawal of love) but prefer positive techniques (rewarding, praising, supporting).

Democratic practices refer to "clearly established policies, established to permit the greatest possible latitude in individual behaviour within which discussion, disagreement and deviation are permitted without punishment or coercion" (Coopersmith, 1967, p.203). So in a family, parental tolerance for independent and contrary opinion, use of general principle rather than isolated separate rules, the extent of freedom permitted within the established limits are all expressions of democratic practices. In families where democratic practices are employed, the child's significance

[1] The term permissiveness is generally associated with the absence of demands and restrictions. In this paper Coopersmith's definition is accepted which only refers to the structuring of the child's world of rules and demands and does not carry any connotations of acceptance or democratic practices.

and individuality is recognized and respected.

Turkish socialization practices emphasize obedience to authority, beginning in early childhood. Respect for authority is a social norm. Obedience to authority is a "basic code of decency and morality in Turkey, and it is a valued historical tradition" (Kâğıtçıbaşı, 1970, p.445). The structure of the Turkish family has been found to be restrictive in discipline but warm in emotional atmosphere (Kâğıtçıbaşı, 1970). Therefore although the parental practices do not permit the greatest latitude in individual behaviour and do not tolerate independent, contrary opinions - salient characteristics seen in "democratic homes" the Turkish family environment cannot be identified as authoritarian or rejecting, either. This is because obedience and respect to authority are justified as normative values, thus the connotations of parental behaviours and children's behavioral outcomes can be quite different.

Independence refers to psychological differentiation from others and implies detachment and lack of influence of others, but does not imply lack of awareness of, interest in or concern for other individuals (Coopersmith, 1967). Some connotations of independence are initiative, persistence, exploratory behaviour (Beller, 1955 cited in Coopersmith, 1967) and assertiveness (Heathers, 1953 cited in Coopersmith, 1967). Parents can induce dependency in their children

or train them for independence. One expression of dependency inducing behaviour is mother's protectiveness of her child; because an overprotective attitude limits the child's exploration and experimentation and prevents him from achieving new levels of accomplishment. It curtails enterprise and initiative and restricts the range and level of the child's activities (Coopersmith, 1967). Levy has demonstrated that highly permissive, overprotective mothers may retard the acquisition of mature responses of their infants (cited in Mussen, 1965). Intrusiveness, excessive contact are other parental attitudes that foster dependency. In the families where children are trained for independenc, parents are willing to permit independent and exploratory behaviour. Such parents encourage their children to do things without them and expose them to new and demanding situations. On the contrary, parents who foster dependency restrict their children's activities and view exploratory and demanding tasks with alarm (Coopersmith, 1967).

As implied by the above description of independence, positive values are attributed to it. Accordingly, the development of independence as an important aspect of autonomy is seen as a prerequisite for optimal personality development. The concepts "separation" and "individuation" are inherent in the definition of the concept of independence which is described as centrally referring to "psychological differentitation from others" (Coopersmith, 1967). Thus parental

attitudes that put emphasis on independence training and self sufficiency are accepted as attitudes that have favorable consequences and are cherished. Gergen (1973, cited in Kâğıtçıbaşı, 1985b) and Kâğıtçıbaşı (1985b) criticize such an individualistic theme which they see as a reflection of the Western cultural ideal. Indeed, socialization values stressing autonomy and independence are characteristic Western values and are not common in Turkey where a family culture of "relatedness" and "interdependence" is the dominant culture base (Kâğıtçıbaşı, 1985b). Socioeconomic conditions, economic development level of the country are all associated with the values that are prevalent in that culture. Kâğıtçıbaşı has found that in the context of poverty and material dependence, high values are put on closely knit, interpersonal ties, interdependence rather than independence (Kâğıtçıbaşı, 1985c, p.9) and argued that in such a context of underdevelopment and family interdependence, independence of the growing child is not functional for the livelihood of the family (Kâğıtçıbaşı, 1985c).

The traditional family which is characterized by a culture of relatedness is different from the Western family where the dominant culture values individualism, independence of the individual and autonomy of the nuclear family. Therefore the traditional family does not fit the usually stipulated "healthy family model" of psychology which is based on the characteristics of the middle class nuclear family of the West. However, the traditional family may be

adaptive, functional and healthy as examplified by the modal Turkish family.

With education, development and modernization, parent-child interactions change and greater autonomy is given to the child (Kâğıtçıbaşı, 1985b). Kâğıtçıbaşı claims that this is adaptive to changing environmental demands for more individual responsibility and autonomy but also asserts that this change does "not have to occur at the expense of the culture of relatedness" (p.17).

Most of the research concerned with autonomy has not dealt with its development specifically (in the theoretical sense) but has been concerned more with the effects of particular parental practices, and components of maternal behaviour that have an etiological relationship to the child's social-dependence have been isolated (Sears et al, 1975, Yarrow, 1948, cited in Schaefer, 1975). As such work is beyond the scope of this thesis, it will not be reviewed.

Considerable differences in autonomy-dependence can be observed among children of preschool age. The dependent child seeks for attention and assurance, does not initiate activities and mostly refers to adults rather than to peers. On the contrary the autonomous child can play alone, initiates projects and social activities and does not depend on adults. Beller (cited in Coopersmith, 1967) has identified some behavioral components of autonomy - independence, initiative,

persistence - and dependency-seeking help, physical contact, proximity, attention and recognition seeking - (cited in Schaefer, 1975) of nursery school children. Sears, Raul and Alpert (1965) used five behaviour unit observation categories of dependency, namely negative attention seeking, reassurance seeking, positive attention seeking, touching and holding and being near, for measuring dependency of nursery school children.

For the purposes of the present research seven categories of autonomy are found to be appropriate. The behavioral components in the assessment of autonomy in this project are: Project initiative, independent activity, social initiative, self-care, persistence, assertion of rights, dependence on adults.

41 - 51

C. EFFECTS OF PRESCHOOL EDUCATION

a. EFFECTS OF PRESCHOOL EDUCATION ON COGNITIVE DEVELOPMENT

The basic question the present study tries to answer is: whether preschools with different orientations have differing effects on various aspects of development. The background of the issue is reviewed here.

i. Background of Early Intervention and Preschool Education

Although private nursery schools have been in existence for many years, they have historically been designed for primarily middle class children. The kindergarden itself was originally designed as an educational institution although the concept of education held at the time was different from the concept held today. For example, "Froebel viewed education as a supporter of development, a result of self-activity. Froebel's education was designed to help the child grasp universal concepts related to man, God and nature through the use of materials and activities that symbolized those universals" (Lilley, 1967 cited in Spodek 1982, p.3). However kindergardens were soon used to serve other than a basic educational purpose. The nature of kindergarden practice became diversified and the nurseries typically became custodial centers.

The deprivation, hardship and suffering that accompanied the industrial revolution in Europe first attracted the reformers to the needs of children (Van Der Eyken, 1974). The industrial revolution brought the women into factories and a need for day-care for young children emerged. The day nurseries were concerned only with the health and nutrition of the children. On the other hand new ideas about the education of young children were also being developed and preschools with educational aims were being set up. Maria Montessor's work with poor and laboring class families in Italy; McMillan sisters' work in England (Spodek, 1982).

The United States Government funded nursery schools and provided support for the establishment of day-care centers during the depression years and World War II, in order to increase the number of women in warwork (Spodek, 1982). However, except for these programs, until 1960's most publicly funded programs in USA were not available for the poor. Several factors were influential in changing this focus of preschool education and increasing interest in preschool education. First the growing appreciation of the consequences of environmental impoverishment made the government increasingly sensitive to the needs and problems of the poor and as a result the American Government in 1965 funded a national program for poor children called Head start. The second major influence came from psychology. Previously held

views that early development occured in a fixed pattern (Shirley, 1931, Gesell, 1938, cited in Bekman, 1982) and that intelligence was fixed (Hunt, 1982). With the advances in the field of cognitive psychology, much importance was attached to the critical nature of early years and the concept of "plasticity" of intelligence.

Hunt (1961) was one of the main figures who raised the issue of plasticity. Hunt argued for the plasticity of intelligence and the importance of early stimulation and experience: "in the light of the evidence now available it is not unreasonable to entertain the hypothesis that, with a sound scientific educational psychology of early experience, it might become feasible to raise the average level of intelligence as now measured by a substantial degree..." (Hunt, 1961 quoted in Hunt, 1982, p.17).

A major influence of the recognition of the importance of the early years for learning was the work of Bloom (1964). In his book "Stability and Change in Human Characteristics" he reviewed data from hundreds of studies and traced the development of many human characteristics and their implications for education (Goodlad et.al., 1973). Bloom believed that early experiences were of critical importance for the child's development and suggested that the major portion of the variance in adult intellectual achievement was accounted for by age 5. Bloom was also a strong believer in the plasticity of intelligence: "With this in mind, we could

question the notion of an absolutely constant IQ. Intelligence is a developmental concept like height, weight or strength... This would suggest the very rapid growth of intelligence in the early years and the possible great influence of the early environment on this development".

Also at the time theories of Piaget became more influential. Piaget emphasized that intellectual development was a function of the child's interactions with his environment during the course of which sensori-motor and mental schemas were formed (Bekman, 1982). Therefore the theories of Piaget suggested the importance of stimulating environments and experiences for cognitive development.

All these developments in psychology, combined with a growing appreciation of the consequences of environmental impoverishment led to the remedial and enrichment approach followed by most early intervention programs. This intervention movement become synonymous with the term "compensatory education" "education to compensate" for real or perceived lacks in the total environment of many young children (Evans, 1975, p.6). These programs were based on a "deficit model" which however was later challenged and criticized.

ii. Educational Intervention Programs

In the field of compensatory education many important programs were developed. Head start was one of the most in-

fluential programs. Most of these programs although offering a wide variety of curricula were center based as opposed to home based: They provided classes over extended periods of time and were able to demonstrate substantial gains in IQ scores at the end of the first year. However, when the subjects were followed up a year or more later, much of the increase in intelligence quotients was lost. Such findings aroused much disappointement and discussion.

Reactions to the disappointing evaluations of Project Head Start was mixed. Jensen (1969) argued that inequalities have a genetic base and therefore are not open to modification by environmental influences (cited in Hunt, 1982). Bronfenbrenner (1974) on the other hand, voiced disappointement in the results of the follow-up studies and pointed to their limitations. In a study of the lasting effects of early intervention programs he elaborated on the problem and asserted that preschool intervention was effective in producing substantial gains in IQ that were maintained so long as the program lasted and that after the first year of intervention the gains were lost. However there are a number of problems with this judgement. Some of the issues in the evaluation of intervention programs are methodological and some are conceptual (Kâğıtçıbaşı, 1981). One of the first problems that early intervention studies encountered was the unidimensional conceptualization of development. Cognitive development was stressed at the expense of growth in other dimensions (Kâğıtçıbaşı, 1981).

Secondly, in response to the pressure of accountability, the intervention programs used the magnitude of change in the child's IQ score as criteria of success or failure of the program (Zigler and Trickett, 1979). Theoretical and methodological problems when one decides to use IQ score in this way are obvious. IQ taken alone is an inadequate outcome measure. Many of the early educational intervention studies (Deutch, 1974; Gray, 1974; Heber, 1972; Smilansky, 1964, all cited in Kâğıtçıbaşı, 1981) report significant gains in IQ scores, immediately after intervention programs. In some of these studies IQ improvement up to 30 points are reported. However many authors (Clarke and Clarke, 1976, 1977; Ginsburg, 1972; Elkind, 1971; all cited in Zigler and Trickett, 1979) have argued for the last fifteen years that the level of intellectual functioning is much more constant and cognitive development much less plastic than was being suggested by Bloom and Hunt.

Many studies (Deutch, 1964 cited in Bronfenbrenner, 1974; Gray and Klaus, 1970) report regression of IQ score after the first year of intervention. These results can be due to methodological artifacts such as regression to the mean as has been argued by Kâğıtçıbaşı (1981) and Bronfenbrenner (1974).

Zigler and Butterfield (1968, cited in Zigler and Trickett, 1979) assert that the IQ changes found in intervention programs reflect motivational changes rather than

changes in the level of cognitive functioning.

Smilansky (1979, cited in Kâğıtçıbaşı, 1981) has argued that the initial IQ gains were achieved through exposure to direct cognitive approaches. Kâğıtçıbaşı (1981) asserts that as cognitive development was not supported by a corresponding growth of the child's self confidence and initiative the increases were not self-sustaining. Bronfenbrenner (1974) analyzed follow up data from two types of early education projects and concluded that programs supporting the immediate social environment of the child were much more effective.

Development of home-based programs were given new impetus as a result of such reports on the importance of parent involvement for effective early intervention programs. Regarding the importance of home-based approach to early intervention programs, Schaefer states that "a major task for our child-care and educational institutions and professions will be the development of a support system for family care and education" (Schaefer, in Bronfenbrenner, 1977, p.444). Also evidence obtained from home based intervention programs point to the importance of supporting the immediate social environments of children eg. Gordon 1975, Levenstein 1976 cited in Kâğıtçıbaşı, 1981), Gray and Klaus (1972).

As has been briefly reviewed in this section, research has demonstrated that the effects of preschool attendance in

early educational intervention programs has mainly been concerned with the changes in performance of children from disadvantaged families by testing only few performance variables. Although the short term effects of the programs were positive, the effects tended to wash out after the termination of the programs. Later research indicated that home based programs or programs that used home visiting as one component of regular center-based programs were more effective. However the failure of the programs as indicated by these findings must not be overemphasized. Zmiles (1982) attributes the failures of the programs to the weaknesses of the evaluation processes. And the report of a Consortium for Longitudinal studies formed in 1975, which is based on follow up data from a number of home-based, center-based and homevisit/center - based programs indicates that early education programs have long term effects.

> "These school performance results indicate that the prevailing pessimism about the long term effects of early education programs was premature. Preschool helped low income children meet the requirements of their schools. Children who participated in consortium preschool programs were significantly more likely than controls to be on grade in regular classrooms rather than assigned to special education classrooms or retained in grade during their school careers. These outcome measures of school success or failure are direct indications of social competence (Zigler and Trickett, 1978). The child has met society's initial expectations thereby increasing his or her future options" (Darlington, 1982, p.479).

iii. Complexity of Behaviour

Complexity of behaviour is one of the basic dimensions studied in the present study as a measure of intellectual development in children. Tizard et.al.'s study (1976b) is one of the few observational studies which considers the effects of preschool centers with different orientations on the cognitive organizations of children's play. Therefore an extensive review of this study will be made here.

The two measures of play used were "use of play materials" and "complexity of play organization". The results indicated that, irrespective of the length of attendance at the center, the play level of older children was more complex, and that they were involved more often in symbolic play. Tizard et.al. showed that the kinds of play mainly depend on what takes place in the nursery setting, and that the type of preschool center the child attends affects certain aspects of play (Tizard 1976a).

As a confirmation of their study Tizard et.al. made a second study (1976b) and investigated the effects of pre-schools with different educational orientations on the play activities of children. They distinguished between two types of preschool centers: those nursery schools with special emphasis on language development, traditional nursery schools, and nurseries without trained teachers. Tizard et.al. (1976b) found that it was not the presence of a trained

teacher that determined the quality of the children's play but rather, the staff behaviour. It was found that the staff channelled children into different activities and this in turn led to the occurence of different play activities. It was also found that staff behaviour varied with type of nursery center. So although no firm causal connections could be formed, orientation of the center was found to be the crucial variable as it affected staff behaviour which in turn affected the behaviour of children.

Bekman's Study (1982) conducted in Turkey provided similar evidence. Bekman investigated the comparative effects of custodial and educational preschool centers on the staff and child behaviour and found that the aim of the center exerted a strong influence on both staff and child behaviour. Both staff and child behaviour was observed to be worse in custody aim centers. In relation to children's behaviour, her findings revealed that the behaviour of children attending maintenance-oriented preschool centers was relatively less complex than that of children attending educationally-oriented preschools.

b) EFFECTS OF PRESCHOOL EDUCATION ON SOCIAL DEVELOPMENT

The present study considers the effects of preschool education on the overall development of children. Since cognitive development is only one aspect of development, one of the other basic dimensions studied is social development. The literature relevant to this domain will be reviewed in this section.

What follows presents a review of studies related to the effects of day care on the social development, social adjustment and social relations of children.

i. Social Adjustment: Peer Interactions and Adult Relations

Most of the research on the social aspects of day care focuses on the child's ability to get along with peers, and his social relations with adults. These studies mainly compare day-care with home reared groups. Recent studies in the area reveal contradictory results.

Raph, Thomas, Chess and Korn (1968) researched the effects of age and differing lengths of school attendance on the social interactions of young children attending nursery school and found significant differences among the groups. Raph et.al. (1968) summarized the results of their study of children from 3 to 6 years of age: "Children interacted with each other more frequently than with the teacher except for

the three-year-olds in their first year in nursery school. There was a significant increase with age in the frequency of interactions, a phenomenon not dependent on length of school attendance. There was also a significant increase in negative interactions with the teacher and a significant decrease in negative interactions with other children, the decrease being sharper for those children who had been in school longest" (Raph et.al., 1968, p.52).

Similar findings with regard to the effects of day - care on a child's ability to get along with peers and adults are reported by Schwarz, Strickland and Krolick (1974) and Moore (1964, cited in Schwarz et.al. 1974). Schwarz et.al. interpreted the congruence of their results with those of Moore, Raph et.al. with the following generalization: "Several interpretations of these parallel observations come to mind. One is that children experiencing substitute care are more resistant to adult conformity pressure while remaining responsive to peer group" (Schwarz et.al. 1974, p.505).

Although Macrae and Jackson (1976) found none of the differences which were significant in Schwarz et.al. in their own study, studies by Lay and Meyer (1972, cited in Schwarz et.al. 1974) and Wynn (1982) which compared home reared children with those having day-care experience indicated that the social responsiveness of young children toward other children were enhanced by day-care experiences. Wynn asserted that early experience with other

children in group care facilitated the development of peer relations and were supportive of exploration and play.

Bonney and Nicholson (1958) conducted three different studies on the comparative social adjustment of children with and without nursery school attendance. Although the results of their first study indicated that the pupils who had attended nursery school had a reliable advantage in prosocial behaviour over nonnursery school pupils, the findings of the other two studies did not show any significant differences among the two groups. The authors indicated that the preschool centers chosen may have differed in their quality. The center used in the first study was college sponsored and in the other two studies they were not. Therefore the findings suggested that the quality of the preschools was responsible for the discrepant findings. The authors concluded: "if early socialization experiences are going to possess significant carry-over effects into subsequent years they probably will need to be of a particularly high quality-level in reference to interpersonal rapport between the pupils and their adult supervisors and also, in regard to adequate supervision for meeting the varying needs of the individual" (Bonney and Nicholson, 1958, p.132). However the above mentioned studies attempted to generalize the effects of day-care-on the social interactions of children without taking into account the orientation of the preschools.

A study which has examined peer and adult social

interaction in three different program settings was that by Reuter and Yunik (1973). They made observations on 3, 4 and 5 year old children in a Montessori nursery school, a university laboratory preschool and a parent cooperative nursery school and found significant school effects in adult interactions, peer interactions and mean interaction duration of children of all three ages. Reuter and Yunik (1973) found that children enrolled in the Montessari preschool - which had a free regime similar to that found in preschools with educational orientations - spent significantly more time interacting with their peers than did laboratory children.

ii. Process Studies of Social Development

Studies that have been concerned with the description of social development have examined the behaviour of children when they were together in a child-care center. Such studies describe the quality of interactions among children and activities that take place in the nursery by observing play behaviours. As the present study is also an observational study that considers age and school effects on the social relations of children, the background of the issue is reviewed here.

The works of Parten (1933), Buhler (1951, cited in Tizard, Philips and Plewis, 1976), Lunzer (1959), Piaget (1962, cited in Rubin, Maioni and Hornung, 1976) and Smilansky (1968, cited in Rubin, Maioni and Hornung, 1976) are among

those concerned with free play behaviour of young children. Buhler, Lunzer, Piaget and Smilansky all describe cognitive levels in child's play and point to its developmental nature. Parten, concerned particularly with the social play behaviour of children, Parten found a positive relation between age and social participation. Her findings also indicated that social play behaviour follows a developmental pattern moving from simple to more complex ones as the child matures. Her social play research showed that there was a general trend towards a decrease in solitary and parallel play with increasing age and a corresponding increase in associative and cooperative play (cited in Bekman, 1982). Her social play categories were used in later research and in this research with very little modifications.

Barnes (1971) and Smith (1978) later reported the same patterns of social interaction as Parten did. Smith in a longitudional observational study found an increase in group play and a decrease in solitary play as the child grew older (cited in Bekman, 1982). These findings imply that as the child grows older, as his verbal and physical skills improve he becomes more involved in social interaction and shows more mature forms of play.

The study of Tizard et.al. (1976) is one of the very few observational studies which considers the effects of pre-school centers with different orientations on the social organizations of children's play. The authors found that the

amount children related to and played with other children and the social organization of their play were related to the child's age (Tizard, Philips, Plewis, 1976, p.262). They also reported significant school effects on the social behaviour of children. Similar findings are reported by Bekman (1982) who found more social behaviours in children attending educationally oriented preschools.

c) EFFECTS OF PRESCHOOL EDUCATION ON EMOTIONAL DEVELOPMENT

The emotional development of children attending day - care centers, in particular, emotional adjustment, attachment, and dependency has been studied extensively. These studies mainly compare attenders with non-attenders.

The commonly made assumption has been that infant day-care would somehow harm mother-child attachment. When John Bowlby in 1951 first claimed that early disruptions of a mother-child relation would have long term deleterious effects on the child's later development (cited in Damon, 1983) his assertions were widely accepted. The results of later studies on the effects of maternal separation were alarming in terms of the reactions of young children when a major separation from the mother was experienced. However, these studies examined the effects of separation resulting from either hospitalization or institutionalization. In 1964 Swift emphasized the difference between day-care and more extreme types of separation, and said that "the separation effects of day care cannot be equated with those of residential care" (quoted in Cornelius and Denney, 1975, p.575). Although the effects of day care separation may not be as great as those of severe separation -e.g. institutionalization-, the child's attachment relationship with the mother may be affected by day care attendance.

The two major studies that have examined the effects of day-care attendance on a child's attachment and dependency relationships are by Caldwell et.al. (1979) and Blehar (1974). Caldwell, Wright, Honig and Tennenbaum (1970, cited in Hitz, 1980) examined the effects of day-care attendance on children who entered child care in the first or second year of life and found no significant differences among the day -care and home-reared groups of infants in a number of variables related to attachment. Thus they concluded that children were not prevented from developing normal attachments to their mothers because of full-time day-care attendance. Further evidence came from the studies of Hock (1945), Ragazin (1975), Kearsley (1975), Cummings (1977), Heros (1976), Ispa (1977, all cited in Hitz, 1980), Brookhart and Hock (1976), Moskovitz, Schwarz and Corsini (1977) and Cornelius and Denney (1975), Riccuiti (1974, cited in Bekman, 1982) who maintained that mother child attachment was not adversely effected by attendance in a day-care program and that home-reared children were no different from day-care children in behaviour towards the mothers. On the other hand, Blehar (1974, cited in Lawrence, 1980) indicated qualitative disturbances in day care children and attributed this to the disruptive effects of frequent daily separations..." (Blehar, 1974, quoted in Lawrence, 1980, p.20).

In summary the research presently reviewed indicates that enrollment in day-care does not disrupt the emotional

adjustment of children and their relationships with their mothers. Blehar (1974) study is the only exception.

The present study considers autonomy as an aspect of emotional development and aims to assess the differing effects of preschools with different orientations on this dimension of emotional development. However, no study considering the school effects on this dimension could be found.

As is evident from the foregoing, the research that has studied the effects of preschools on the emotional development of children have focused primarily on the child's attachment relation with the mother and ignored the possible positive aspects of day care experiences. In fact, it may be suggested that rearing children in a group that provides for social interaction with other children can be very advantageous as agemates can supplant the mother as a support for exploration and play (Wynn, 1982) and thus the occurence of autonomous behaviours may be increased by preschool experiences which provides for the formation of social relations among age mates.

D. FACTORS WHICH AFFECT THE NATURE OF PRE-SCHOOL EDUCATION

Many of the studies that attempted to determine the effects of day-care experiences on the cognitive, social and emotional functioning of the child have been reviewed in the preceeding sections. As the field of day-care grows, there is a need to clarify the purpose and differences of day-care centers; as these settings provide very distinct environments and foster different behavior patterns. It has been mentioned earlier that the quality and nature of the child's experiences with his environment are crucially important for development and that behavioral intercorrelations are related to the features of the social context (Fein, 1975). There is a dialectial process between the child and the environment he is in: The child both acts on the environment and is acted on by the environment. According to Halpern (1982) this dialectical process provides a guide as to how we might look at psychosocial well-being and development. So certain variables that exist in the preschool educational system, aspects of the social and physical setting must be considered. In this respect the people that the environment provides, their usefullness and availability, the nature and demands of child's activities, the physical structure, the ecological characteristics of the environment, available toys and materials, etc. are all important because they affect many aspects of children's behaviour. A portrait of the child's environment must be made in order to be able to examine the effects of preschool

experiences on his functioning and behaviour. The present study rests on the belief that the differences observed in center variables that are distinct and different in pre-schools with different institutional aims affect child behaviour and development in various areas. For this reason some of the important variables in the preschool educational system and the variations in them will be reviewed in this section.

i. Environment/Structure

Different ethos (orientations) determine different environments characterized by different structures accompanied by differences seen in adult input, decision making processes, thrusting behaviours, differences in quality and quantity of adult-child interactions. These in turn lead to different child behaviours. The differentation between nursery environments are mainly based on their structures. According to Prescott (1973, cited in Lawrence, 1980) there are two basic types of structure that delienates center care: "Open Structure" and "Closed Structure". Prescott calls the centers where teachers make most of the decision "closed structure", and he labels the centers where children are encouraged to choose "open structure" centers. So according to Prescott the two general types are based on whether the teacher or child initiates activities (Prescott, 1978, quoted in Lawrence, 1980).

Prescott made observations on 112 children whose age ranged from 2 to 5 years and compared different types of care-home care and center care with different structures - according to the following categories.

1- The availability and usefullness of adults as indicated by (a) amount and type of adult input, (b) amount of child's attention directed to adults, (c) incidence of asking for and receiving help, (d) frequency of 1:1 adult - child involvement;

2- Opportunities for autonomy and initiative as indicated by (a) ratio of thrusting behaviour to conforming behaviour, (b) percentage of activity segments initiated and terminated by the adult rather than the child, (c) incidence and length of structured transitions and (d) opportunities to engage in solitary activities;

3- Supports for self esteem as negatively indicated by (a) incidence of rejection and frustration and (b) interference with functioning, and

4- Opportunities for cognitive engagement as indicated by frequency of awareness of cognitive constraints." (Prescott, 1973, quoted in Lawrence, 1980, p.14).

Prescott (1978) found differences between home-care and center-care. There were also differences between open and closed structure centers. The children in open structure

centers were involved in play for 25% of their time without any adults present, while the children in closed structure centers were usually involved in activities with groups of ten to twelve children and an adult for most of the day. In open structure care, adult-child-ratio's were small and the amount of time of adult presence was less than in closed - structure centers (cited in Lawrence, 1980).

The effects of adult availability on the dependency behaviour of children has been considered by Gewirtz (1956, cited in Lawrence, 1980). Gewirtz has found that when adult attention was constantly available children showed less active tendency to seek attention, less dependence than when adult attention was limited.

Prescott, comparing closed structure and open structure centers in terms of the amount of adult input, found that in closed structure centers adult pressure for compliance (e.g. "put the blocks away") was higher and adult facilitation (e.g. "Do you need any help in putting the blocks away?") was lower (Prescott, 1978, quoted in Lawrence, 1980, p.15). Similarly Schoggen, 1963, cited in Smith and Connolly, 1980) and Berk (1971, cited in Smith and connoly, 1980) reported higher degree of environmental force, teacher expectations and child compliance in schools with structured regimes and more persistent behaviours on the part of the child in unstructured regimes. Prescott (1978, cited in Lawrence, 1980) and Reuter

and Yunik (1973) comparing these two types of center care in terms of the amount of attention directed to adults found most child-child interaction and least adult-child interactions in open-structure center-care. Prescott (1978) also found differences among closed structure and open structure centers in terms of the ways in which activities were initiated and terminated-decisions being made by either children or adults. Decisions about activities were found to be made by adults in open structure centers, 20% of the time and in closed structure centers, 58% of the time (cited in Lawrence, 1980). He also observed that such different decision making processes affect the daily program of children attending different types of centers. The settings which provided the greatest amount of adult decision-making also required the children to spend the largest percent of time in structured transitions, such as lining up, waiting for activities and toileting. "Where children are less free to choose, adults spend more time closing off possibilities ... and emphasizing rules" (Prescott, 1978, quoted in Lawrence, 1980, p.16). As would be expected from the dramatic differences in the regimes of the different types of centers had differential effects on the behaviour of children. Prescott reported that "children in closed structure settings spent significantly more time in meeting expectations (obeying, answering questions, keeping body in appropriate position) and that they were markedly lower on all types of thrusting behaviour (being physically active, giving orders, selecting, choosing,

playful and agressive intrusion, asking for help, giving opinions)". He thus concluded that the children in open structure environments were higher than those in closed structure on these categories of active engagement with the environment (Prescott, 1978, quoted in Lawrence 1980, p.17).

Dreyer and Rigler (1969) compared the achievement of children in adult centered (closed structure) and child centered (open structure) centers and found that children in highly structured adult-centered regimes were more task oriented and did less well on a verbal test of creative thinking (cited in Smith and Connolly, 1980).

Beller, Zimmie and Aiken (1971) compared the levels of play shown by the children enrolled in adult-centered and child-centered classrooms and found less play and especially less symbolic play in adult-centered classrooms (cited in Smith and Connolly, 1980). Beller (1973), again comparing these 2 types of structure concluded that adult centered regimes "facilitated discrimination learning, while child - centered programs, with an emphasis on self-initiated and self-directed spontaneous activity on the part of children was conducive to creativity and free symbolic expression in the play behaviour of children" (Beller, quoted in Smith and Connolly, 1980, p.199).

Huston-Stein (1977) and Cofer and Susman (1977) found a relation between classroom structure and social behaviour, imaginative play and self-regulatory behaviour. They found

that children in highly structured classes displayed less prosocial behaviour towards their peers and engaged in less imaginative play than children in low structure classes.

The low level of imaginative play in closed structure centers can be seen as a drawback of this type of center care as the cognitive signifigance of symbolic play has been reported in many studies (Golomb and Cornelius, 1977; Golomb 1982; Rubin and Maioni, 1975 cited in Rubin, Maioni and Hornung, 1976).

In sum, from the literature reviewed in this section, it is seen that child care environments with different structures are different in terms of adult-input, decision-making processes, and thrusting behaviours. Level of child-child and child-adult interactions, among the differently structured settings differences in the behaviour of children are found. And it is concluded that highly structured, closed centers facilitate obedience to rules while open structure centers are condusive to the development of self-directed independent efforts toward mastery of cognitive skills.

ii. Staff-Child Ratio

A very important variable that affects the various experiences within the nursery school is the teacher-child ratio. This ratio is widely accepted as an important index of the programs potential value, because at many times the quality of a development program mainly depends on adult-child inter-

action. Variation of teacher-child ratios may affect teacher-child contact, and children's behaviour generally in the preschool.

Smith and Connolly (1976) reported that when child - staff ratio was high, children made more demands to communicate with staff, and that they made more statements without receiving a reply. Smith and Connolly found that when the number of staff per child was increased, the number and length of conversations and the efficiency of communication also increased (cited in Bekman, 1982).

O'Connor (1975) investigated the effect of adult-child ratio on the frequencies of social interaction and found that in settings with more adults present per child, children interacted significantly more with adults and less with peers. The benefits of peer interaction as indicated by many studies, has already been reviewed.

iii. Available Materials

Different kinds of materials available in the nursery center, may elicit different skills from children and thus affect incidence of particular types of social interaction. Few detailed studies that relate different kinds of materials with different play behaviour have been carried out. One early exception is the report of Updegroff and Herbst (1933) comparing the different kinds of social behaviour encouraged by playing with clay versus with wooden blocks (cited in

Smith and Connolly, 1980, p.51). Shure in a later study compared art corner, books, dolls, games and blocks as relative facilitators of active social interchange and/or destructive behaviour (cited in Smith and Connolly, 1980). Jones (1972) found that much rough and tumble play occured when a slide was available (cited in Bekman, 1982) and Pulaski (1970) showed that less structured toys elicited a greater variety of fantasy themes in play (cited in Bekman, 1982).

It has also been found that variations in the amount of play materials are effective in bringing about changes in play behaviour of children. Smith and Connoly (1976) have found that providing more play equipment decreased the number of parallel and cooperative groups. They observed that, when there was less play equipment there was more sharing of toys and apparatus and there were also higher rates of group running and chasing around (cited in Bekman, 1982). Smith (1974) also claimed that relative deprivation of objects in the nursery situation could increase behaviour interpreted as creative eg. putting chairs in a line and playing train etc. Smith found in general that when toys were reduced but "apparatus" remained available (like furniture, climber etc.) children responded to these changes with increased "sociality and inventiveness" (cited in Gump, 1978).

II. SCOPE AND METHOD

A. SCOPE OF THE STUDY

The purpose of this study is to further investigate the relationship between the orientation of preschools attended and some aspects of the social, emotional and intellectual development of three and five year old children of low socioeconomic status. The basic underlying assumption is that different environmental contexts (custodial preschool care, educational preschool care) will affect children's development differently. For this purpose an attempt was made to assess the competence of children in the complexity of behaviour, social participation and autonomy dimensions to find out the comparative effects of custodial and educational preschool centers providing different environments.

General orientations of the preschool centers were selected as variables to represent sources of contrast and two age groups were considered.

The present study attempted to cover child behaviour and development in some aspects of the cognitive, social and

emotional areas and expected to find cognitively and socially more complex, emotionally more developed, autonomous child behaviour in educationally-oriented preschool centers. The reverse was expected to be typical of centers with custodial care programs.

B. HYPOTHESIS

The present study is based upon the following hypotheses:

1- Both 3 and 5 year old children attending educationally oriented preschool programs will obtain higher scores in complexity of behaviour dimension than their agemates in custodial care programs.

2- Both 3 and 5 year old children attending educationally oriented preschool programs will obtain higher scores in social participation dimension than their agemates in custodial care programs.

3- Both 3 and 5 year old children attending educationally oriented preschool programs will engage in more autonomous behaviour than their agemates in custodial care programs in both age groups.

4- The 5 year old children will in general show higher levels of social participation, complexity of behaviour and autonomy than 3 year old children.

72-79

C. PROCEDURE

DESIGN

The present project consisted of a study involving eight groups to be studied comparatively by systematic observation. The method of observation was the main measure for assessing the groups. Also interviews were used as a second way of assessment to provide a further check for the data obtained from the observations. The first question was approached through an observational study of children's behaviour in six nursery schools. The second and third questions were approached through both an observational study and "child interviews" done with the mothers about the child. The total sample consisted of 119 children of 3 and 5 years of age. Subjects consisted of almost equal groups of children from two different types of preschools. The first group consisted of children from preschool centers that do not have any educational aims; but only serve the need for custody/maintenance and the second group consisted of preschool centers that have educational orientations. The two groups of children were balanced for sex and age with 60 boys and 59 girls and 60 five year olds and 59 three year olds. Half of each group belonged to custodial preschool centers and the other half to educationally preschool centers. Six different preschool centers, three with custodial aims and three with educational orientations are used in the study.

The study has 2x2 design (age by type of center).

TABLE 1- Distribution of children according to age, sex and orientation of the center

	Custodial Preschool Care						Educational Preschool Care						
	Males			Females			Males			Females			
AGE	Maltepe	Üsküdar	Cibali	Maltepe	Üsküdar	Cibali	Zeytinburnu	Mensucat Santral	Eczacı-başı	Zeytinburnu	Mensucat Santral	Eczacı-başı	
3	5	5 15	5	5	5 15	5	4	3 15	8	3	4 14	7	59
5	5	5 15	5	5	5 15	5	4	5 15	6	5	5 15	5	60
		60						59					N=119

SELECTION OF CENTERS

The six different preschool centers selected for this study were all in inner Istanbul. The method of purposive sampling was used and three custodial and three educational preschool centers were selected. All three of the maintenance-oriented preschool centers were under the supervision of the Ministry of Customs and Government Monopoly and served the children of workers in cigarette factories run by the Turkish State Monopolies. One of the education oriented preschools (Çocuk Esirgeme Kurumu - Zeytinburnu) was under the supervision of the Ministry of Health and Social Welfare and was run by the Union for Children's Welfare (an institution of the Red Crescent) and the other two of the education oriented preschools served the children of workers in private sector factories. All of the centers were staffed with trained nursery teachers who were graduates of "Girls Vocational School".

The working class preschool centers were chosen for the study since the project aimed to cover the working class population and the validity of classification of the centers as working class was checked by the investigators of the Comprehensive Preschool Education Project, during the course of a preliminary visit to each center. The social class composition of the preschools was determined on the basis of the socio-economic background of the majority of the children it served and the location of the centers.

The orientation of the centers was determined on the basis of an interview with the directors of the centers (see Appendix 1) and a rating scale (see Appendix 2) which was completed by an observer after visiting the centers for a few days. If the centers satisfied the criteria for orientation and social class, it was selected for the study. If not, it was dropped.

The working class status of the parents was determined according to the father's and mother's educational and occupational level and their housing conditions. Working class was identified with an educational level of graduation from at most junior high school for mothers, the occupational level were low level factory jobs, and the houses were located in shanty town areas. Children whose parents met these criteria (of social class status) were randomly chosen from a list provided by the directors.

The two different orientations of the centers, namely maintenance/custody and educational orientations which are presumed to form the existing dichotomy in the system were assessed during preliminary visits to various centers. Preliminary observations indicated some centers to give predominant importance to the position of safe-shelter and nutritional diet for the children. These centers thus exhibited custodial care and to a great extent ignored the social, emotional and intellectual development of the children. The other centers mainly gave predominant importance to social

development and slightly less importance to the intellectual development of the children.

The interview with the headteacher and a rating scale which evaluated the management techniques in the centers, were the evaluation measures used to determine the aims of the centers.

The interview used to determine the aim of the center (see Appendix 1) consisted of 24 questions which tried to capture the headteacher's own ideas on the preschool education and the working conditions of that particular preschool center. In the construction of the interview standard procedures for scale construction and five judges were used. The resulting interview contained items reflecting different aims for each question and on which there was high interjudge reliability. .75 was accepted as the lower limit of agreement.

In addition to the interview, the rating scale also aimed at evaluating the school environment for determining the orientations of the centers. High interjudge reliability was also obtained in this scale and again .75 was accepted as the lower limit of agreement.

The differential characteristics of the preschool centers become apparent when they were clustered with referenc to their orientations. The characteristics that describe them are as follows:

I. Characteristics of Maintenance-Oriented Preschools

a) Emphasis is on maintenance activities such as physical care, feeding and cleaning.

b) The center provides a poor stimulating environment. There are either few toys or they are inaccessible in cupboards.

c) Activities are mainly group oriented.

d) Children are expected to conform to group behavior.

e) Children are expected to obey authority and be engaged in activities considered to be appropriate by the teacher.

f) There is little interaction and cooperation between the school and the family in terms of the state of the child.

g) There is high child-staff ratio (40/1, 30/1).

II. Characteristics of Educationally Oriented Preschools

a) Emphasis is on educational activities such as teaching concepts, operating on numbers and several objects new to the child.

b) The center provides a rich stimulating environment. There are sufficient materials and toys.

c) Activities are designed to meet the individual needs of children.

d) Children are expected to develop initiative in controlling their behaviour.

e) Children may engage in activities which they themselves choose and work at their own rates.

f) There is interaction and cooperation between the school and family. The family is informed about the child's needs, problems, abilities, and development in general.

g) There is a low child-staff ratio (15/1, 20/1) (Öney, 1980, p.13).

All the preschool centers except one educationally - oriented preschool center (Ç.E.K. Zeytinburnu) catered for children within the age range 0-6 years. The age range served by Ç.E.K. was between 3-6 years.

All the preschool centers had a full day session. The sessions usually started around 8.30-9.00 in the morning and ended around 16.30-17.00 in the afternoon.

All the preschools gave service to children coming from low socioeconomic status families where both the parents were working. Thus social class was kept constant.

SUBJECTS

The subjects of the study were 59 children at the age of three (born between 1/1979-6/1980) and 60 children at the

age of five (born between 1/1977 - 6/1978). Half of the five year old group were from educationally oriented preschools and the other half were from maintenance-oriented preschools. Among the three year old group 29 children belonged to preschools giving educational care and 30 children to preschools giving custodial care. Of the 119 children 60 were males and 59 females. All of the subjects were from intact families.

Subjects were randomly selected (from a list obtained from the directors of the centers) according to parent's educational, occupational level and housing conditions and according to age and unbroken family composition.

INSTRUMENTATION

The present study mainly used naturalistic methods of direct observation because it was felt that much information concerning the behaviour of the child is lost by the methods which are descriptive like questionnaires.

Three measures were used to collect the data. Social participation was assessed with the Parten Gradient of Social Participation which was adapted by Tizard (1976). Complexity of behaviour was assessed by Tizard Scale of Complexity of Play Organization and autonomy was measured by a scale of seven items, constructed for comprehensive preschool education project.

The Parten Gradient of Social Participation

Tizard's adaptation of the Parten scale involves seven categories. In the present study, although mainly Tizard's (1976) model was used, one category was eliminated and one was added to it; because observations of children's behaviour in Bekman (1982) study revelaed that it would be functional to add the category of "onlooker behaviour". The category of "attempts to produce cooperative play" was not included in this study. The categories ordered in terms of increasing social involvement were defined as follows:

0- Onlooker Behaviour:

In this category, the child is not involved in any activity. He might watch others without getting involved in their activity, or he might, sit down doing nothing at all. Also he might wonder about in the group or talk about things not related in any way to the present activities of the group. The child is not involved with play materials or any discernible project or activity.

1- Solitary Activity:

The child's activity is independent of others. He plays by himself with material different from that used by other children within speaking distance. He pursues his play or others activity without reference to what others are doing.

2- Parallel Activity:

In this category, the child is involved in an activity near other children, using some or all of the same materials as the others, but he does not try to influence or modify the activity of the other children. For this category to be appropriate, the child must be involved in an activtiy next to others, but must be principally concerned with the material and not with another child or group of children.

3- Weakly Organized Social Activity:

The child's behaviour is modified by others, or he attempts to modify the behaviour of others, but the children do not cooperate for a common purpose. This category includes:

a) Borrowing, loaning or exchanging materials.
b) Weakly organized games like chasing or hide and seek.
c) Attempts to control the comings and goings of another child or group for the purpose of performing some subsequent act.
d) Talking about the activity he is involved in with the aim of influencing others' behaviour e.g. showing what he is making to another child.
e) Rough and tumble play, wrestling.
f) Following one another around, on wheel toys or otherwise.

g) Organized games in which the child joins a group. At this level, each child acts independently and the children do not subordinate their interests to those of the group.

4- Cooperative social activity without division of labour: This category covers instances in which two or more children assist each other in a task which could be equally well done alone, and in which they each do the same thing. Examples might be joint painting, or putting down a large sand castle. Rather than working independently, both children try to achieve a common goal, but each carries out identical tasks.

5- Cooperative Social Activity with Division of Labour: In this category there is division of labour at a low level in activities which would not occur without the participation of more than one child. The children may carry out identical tasks in a reciprocal way e.g. using a see-saw, kicking a ball back and forth to each other, carrying a heavy box together etc. or there may be role division in which one child is active and the other passive, as when one pushes the other on a swing, or one child acts the role of mother and the other is assigned to be baby and accepts the definition of what he has to do.

6- Cooperative social activity with role differentiation: In this category, various children who are involved in the same activity have active but distinct roles of more or less equal importance. For instance, one may pull a cart while the other pushes, or one acts as mother and the other as father. This category also includes cooperative efforts to build a structure, as well as active participation in a game in which players are assigned different roles in which rules are kept. (Coding Categories, Kâğıtçıbaşı, 1981).

This instrument was designed to yield a total social participation score. The score was determined by observing a subject for a total of 50 minutes in five sessions of 10 minutes each on five different days. After each observation, the behaviour of the subject was classified into one of the seven categories. A value was assigned to each behavior: Onlooker behaviour (+1); solitary activity (+2); parallel activity (+3); weakly organized social activity (+4); cooperative social activity without division of labour (+5); cooperative social activity with division of labour (+6); cooperative social activity with role differentiation (+7). After 50 observations were completed, the 50 scores were summed to yield a total social participation score (see Appendix 5). The lower the score, the less socially participative the subject was during observations.

The Tizard Scale of Complexity of Play Organization

In this study, complexity of behaviour is assessed by use of Tizard et.al. Scale of Complexity of Play Organization where complexity of behaviour is assessed by the number of connected acts in a given time sequence. For this dimension all the levels of complexity used in Tizard et.al's study are taken without any change. However, the observation of children's behaviour revealed that it would be functional to add the category of "no activity" in addition to the existing one's in Tizard's model. The categories in increasing complexity are as follows:

0- No activity

1. Single activities
2. Two related activities
3. Three or four related activities
   a) Not more than 2 coherently related
   b) At least three coherently related
4. At least 5 related activities
   a) Not more than 2 coherently related
   b) At least 3 coherently related

(For examples of activities which can be classified in each of the categories - see Appendix 6).

This instrument also yields a total score for complexity of behaviour. The score for each subject was again determined by observing him for a total of 50 minutes in five sessions

of 10 minutes each on five different occasions. After each observation, the behaviour of the subject was classified into one of the seven categories. A value was assigned to each behaviour: No activity (+1); single activities (+2); two related activities (+3); three or four related activities with not more than two coherently related activities (+4); three of four related activities with at least three coherently related (+5); at least five related activities with not more than two coherently related activities (+6); at least five related activities with at least three coherently related activities (+7). After 50 observations were completed the 50 scores were summed to yield a total complexity of behaviour score (see Appendix 7). The lower the score the less complex the subject's behaviour was during observations.

Autonomy

Autonomy was measured by seven items. The children were observed in their interactions with their teachers and with other children and rated for the degree of autonomy and initiative they show. The subcategories do not form a scale but rather they are different aspects of autonomy dimension. The subcategories are operationalized as follows:

1- Project initiative:

In this category, the child initiates a play activity or there is the use of play material without direction or

suggestion from the teacher or another child. The activities that are some sort of self-stimulation (e.g. thumbsucking, rocking) or activities that appear to be aimless (e.g. kicking the table leg, running a finger along the window sill etc) are not included in this category.

2- Independent activity:

The child carries out an activity with minimal or no supervision by an adult. The activity may have been initiated by the child himself, or may have been suggested by the teacher or another child, but in either case the child carries out the activity independently. This category also includes instances in which the child is involved with one or more other children in a joint activity which they carry out without supervision.

3- Social initiative:

In this category, the child initiates social interaction either in the form of conversation or an invitation to another child to play or to join an ongoing project. This category is not used when the child physically or verbally attacks another child. Also this category is not used when the child responds to another's social initiative.

4- Self-care:

This category includes instances when the child carries out some self-care activity (e.g. putting on shoes, washing hands, toilets) independently. This category also includes instances when the child gets some adult help with tasks that are moderately difficult, such as buttoning a sweater or buckling shoes, provided that he makes a real effort to do it.

5- Persistence:

This category is used when a child persists in an activity despite difficulties or frustrations. For instance, he keeps on trying to put a puzzle together despite several unsuccessful attempts to fit pieces together, or he rebuilds a block structure which has fallen down.

6- Assertion of rights:

This category includes instances in which the child defends his interests against other children or adults. For example he may resist another child taking away the material he is playing with, or he may object to not getting his turn on the swing, or he may ask for a few more minutes to finish his picture before putting away the crayons. In this category the child resists interference, direction, or the loss of his rights in a "reasonable manner" without resort to tantrums or physical violence.

7- Dependence on adults:

The child is primarily oriented toward the teacher or other adults. The behaviour in this category may be quite various. For example, the child clings to the teacher, or he tries to get the teacher's attention by "showing off", or he tries to draw attention to himself repeatedly during the course of one activity, or he asks the teacher for help or advice, or tries to get her to carry out a task in his place, or he "tattles" on other children, or he follows the teacher around (Coding categories, Kâğıtçıbaşı, 1981).

The items of autonomy were also used so as to yield a total autonomy score, by counting the number of times each autonomous behaviour occured on the observation sheet during the total of 50 minute observation period. After 50 observations were completed, the number of times each autonomy subcategory occured was counted and summed, except the seventh subcategory (dependence on adults), the number of times the seventh item occured was substracted from this score, as this category was indicative of dependence. The lower the score, the less autonomous the subject was considered during observations.

INTERVIEW SCHEDULES

The observational study was further checked by an interview schedule. The mother of each child in the sample was interviewed about their children's behaviour during a home visit by one of a group of eight investigators (the present

researcher is one of these eight investigators). The schedule for this "child interview" was composed of 55 close-ended questions, 10 of which (questions 4-13) concerned social participation and 23 of which (questions 30, 33-55) concerned autonomy. The questionnaire did not include questions concerning complexity of behaviour dimension as the categories of this dimension were more complex and could not be formulated as questionnaire items.

The items in the questionnaire were pretested in a pilot study and in some cases were revised. The same seven subcategories of behaviour (mentioned before) in social participation and autonomy dimensions were included. The relevant portion of the interview schedule is reproduced in Appendix 4.

The questions 4-13 in the interview were designed to assess the social participation of the subjects by the information gathered from the mothers. From the items in this interview, question 13 showed onlooker behaviour, question 4 solitary activity, question 5 parallel activity, questions 6 and 7 weakly organized social activity, 8 and 9 cooperative social activity without division of labour, question 10 cooperative social activity with division of labour and questions, 11 and 12 cooperative social activity with role differentiation.

These questionnaire items were also used to yield a total social participation score. The score was determined from the answer categories checked by the mother which indicated the mother's belief about the existence and incidence of the child's behaviour in each of the categories as measured by the related questions (see Appendix 4). Three answer categories namely frequently, occasionally and never, were collapsed into 2 categories where the answers frequently and occasionally were taken as indicative of the presence of the behaviour asked and never as indicative of its absence. Arbitrarily a score of 1 was given to the presence of and 0 to the absence of the behaviour in question. Whenever two questions asked information about the same subcategory, the score obtained from the two questions were divided by two. A value was assigned to each behaviour (as was done with the observations) ranging between +1 and +7. The seven scores obtained from these ten questions were them summed to yield a total social participation score (see Appendix 8). The lower the score, the less socially participative the subject was considered to be.

The questions 30, 33-55 in the interview were designed to assess the autonomy level of the subjects by the information gathered from the mothers. Questions 30 and 33 showed project initiative, 34-38 independent activity, 39-41 social initiative, 42-46 selfcare, 47 and 48 persistence, 49-51

assertion of rights and 52-55 dependence on adults. These items were also used to yield a total autonomy score for each subject. For each question a subject could get a score of 3, 2, or 1 (see Appendix 4). A score of 3 was indicative of frequent autonomous behaviour and 1 its absence, in one of the subcategories of autonomy dimension as measured by that particular question. The total autonomy score of each subject was computed by summing the scores that the subject got from each question. The possible maximum score was 75. The lower the score the less autonomous the subject was considered to be, according to the information gathered from the mother by use of this interview schedule.

OBSERVATION PROCEDURE

The observations were made by 11 observers in six different nursery schools. The observations were done during the free play periods. The periods when the whole group was expected to act uniformly (nap time, meal times, group toileting etc) were not observed.

Each child was observed for a total of 50 minutes in five sessions of 10 minutes each on five different days. Each ten minute observation period was divided into ten one-minute segments. The observers used the first half (30 seconds) of each minute to observe the child and the second half-minute to record the observations.

During the observations, the observers did not initiate any interactions with the children, but occasionally a child would attempt to interact with them. Observations interrupted in this way were not included in the data. During observations, the observers kept as far from the child as possible without interfering with the accuracy of the recording. Although it was hard to be completely sure that the observer in no way affected the children's behaviour it seemed that the children accepted the observer's presence and took no notice of them after a while.

Each observer had a list of children to be observed. The list was randomly ordered and the children were observed in accordance with it, in order to sample from all times of day. At each observation day this process was repeated in order to have a different random order.

RECORDING THE OBSERVATION

During each observation period attention was centered only on one child at a time. Before beginning the observation, the observers first spent several minutes in orienting themselves to the target child in order to understand the activity he was engaged with and grasp what he was doing and then started their actual observations. Stop watches were used to time the observation and recording periods exactly.

Separate recording sheets were used for each child.

The activity the child was engaged in, the materials he used and whether other children or adults were present were all written down for each one-minute interval in brief notes in the "activity column". In the "talk column" of the recording sheets what the child said and what other children or adults said to him was written verbatim, in so for as possible, (see Appendix 9).

The equipment used by the observers were recording sheets, a pencil and a stopwatch.

SCORING THE RECORD

Scoring was done on the observation sheet (see Appendix 9) after the observations were finished for each day. The observations recorded were coded on three different dimensions namely social participation, complexity of behaviour and autonomy.

a) Scoring Units for Levels of Social Participation

For each minute of observation, a decision was made as to which of the seven categories of social participation the child's behaviour represented.

Only one category was assigned for each observation minute and the highest category observed in this one minute period was coded.

b) Scoring Units for Complexity of Behaviour

For each minute of observation a decision was made as to which of the seven categories of complexity the Child's behavior represented. Only one category was assigned for each observation period (minute).

The child might show solitary activity for 10 minutes but the level of complexity of the activity that he was engaged in might change. For this reason, within each observation period it was necessary to score for both of the measures of behaviour.

c) Scoring Units for Autonomy

For each minute of observation a decision was made as to whether any autonomous behaviour existed. Then a decision was made as to which of the seven categories of autonomy the child's behavior represented. A child during each unit could show none, one or more than one of these subcategories of autonomous behaviour.

In each observation period (minute) all three measures of behaviour-social participation, complexity and, if it existed, autonomy-was scored.

INTER-OBSERVER RELIABILITY

In the present study checks for interobserver reliability were made five times on the observations of two observers.

All of the checks were carried out during the pilot study for the Comprehensive Preschool Education Project, conducted in the Bosphorous University Preschool Center. The assessments were made on data from 40 children. Each child was observed for ten minute intervals five times. Reliability scores were calculated on the basis of the total scores entered for each major dimension (see Table 2). Reliability checks were obtained by the method of percent agreement

$$\frac{\text{number of agreements}}{\text{number of agreements + number of disagreements}} \times 100.$$

Table 2

Reliability Scores Averaged out over the Cases at Each Time of Observation

	Social Participation	Complexity	Autonomy	General
1st	.90	.70	.71	.77
2nd	.83	.63	.79	.75
3nd	.80	.70	.71	.74
4th	.80	.70	.82	.80
5th	.90	.83	.84	.86

Averages:	Social Participation	.84
	Complexity	.71
	Autonomy	.77
	General	.78

It is observed in the table that interjudge reliability is satisfactory.

INTERVIEW PROCEDURE

The interviews done with the mothers were conducted during home visits. When possible, the interviews were conducted alone to avoid the influence of other members of the family on the answers. In same cases this proved impossible because of the limited number of rooms and large number of family members present in the home.

ANALYSIS OF DATA

The statistical analyses for the two seperate data sets (data obtained from observations and data obtained from questionnaires) were done seperately. The data were processed by computing a total score for each subject in each one of the three dimensions. Means and standard deviations were calculated for each of the dimensions according to age and type of the center. T-tests were used for comparisons as the main analysis in the study and correlations were done between the two data sets.

Separate statistical analysis for the observational data was carried out on the frequency of each behaviour that occured during the observation period. T-tests were run for each behaviour variable according to type of the center and

age for differences between groups. Such an analysis for each category of behaviour was done in order to see how each behaviour category was related with the orientation of the center and age of subjects. The data revealed that the subjects showed high frequency of behaviour in few of the subcategories and very low frequencies of behaviour in the rest of the subcategories in the dimensions of complexity of behaviour and social participation therefore some subcategories were combined for the dimension of "complexity of behaviour". The seven different levels of complexity used were reduced to four. The categoires "three or four related activities with 1) Not more than 2 coherently related 2) at least 3 coherently related and "at least 5 related activities" with 1) Not more than 2 coherently related and 2) at least 3 coherently related were combined, as the children showed very little instances of these behaviour. The variable "more than 2 related activities was found satisfactory for describing more complex levels in this dimension. For "Social Participation" dimension the seven different levels were reduced to 5. In this dimension the categories "cooperative social activity without division of labor", "cooperative social activity with division of labor", "cooperative social activity with role differentiation" were combined. A variable describing an activity where two and more children participated in a single task trying to achieve a common goal was found satisfactory.

III. RESULTS

The purpose of this study was to investigate the effects of preschool centers with specified, different institutional aims on the children's social, emotional and intellectual attainment as indicated by their behaviour in social participation, autonomy and complexity of behaviour dimensions.

This chapter presents the results of two statistical analyses carried out on the data. First the main analyses done on the basis of total scores will be reported. Total scores were computed for each of the dimensions separately for each child as explained before in the method section. The analyses for questionnaire and observation data will be reported separately and the results will be described in terms of each of the four hypotheses.

Secondly, the results of a detailed analysis done on the basis of observed frequency of behaviour of each subcategory in each dimension will be reported.

A. TESTING THE HYPOTHESES

To test hypothesis 1, which stated that children attending educationally oriented preschool programs would show more complex play behaviour than children in custodial care programs in both age groups, t-tests were done for the total complexity of behaviour scores. Subjects were combined from the two age groups. Table 3 shows the comparisons for total complexity of behaviour scores.

TABLE 3

Comparison of Total Complexity of Behaviour Scores

Group	n	Mean	Standard Deviation	t	df	p
Custodial	60	82.38	14.01	4.64	117	.001
Educational	59	95.16	16.02			

As seen from Table 3, the difference between the groups was highly significant. The results of this analysis thus indicated that there was a significant difference between the two groups on the complexity of behaviour dimension when total scores were considered. The subjects in educationally oriented preschools scored significantly higher than children in custodial programs. Therefore hypothesis 1 was supported.

To test hypothesis 2, which stated that children attending educationally oriented preschool programs would obtain higher scores in social participation dimension than

children in custodial care programs, the data obtained from observations and questionnaires (child interviews) were analyzed separately. Separate t-tests were done for the Social Participation total scores obtained from the observations and questionnaires.

The comparison of total social participation scores are shown in Table 4.

TABLE 4

Comparison of Total Social Participation Scores

Source	Group	n	Mean	Standard Deviation	t	df	p
Observation Data	Custodial	60	108.45	25.28	3.69	117	.0001
	Educational	59	125.71	25.75			
Questionnaire Data	Custodial	60	21.40	4.16	-1.73	116	.08
	Educational	58	20.03	4.41			

The t-values obtained for the total social participation scores from the observations was highly significant. The results of the analysis thus indicated that children attending educationally oriented preschools scored significantly higher than children in custodial care programs in social participation dimension.

The t-values obtained for the total social participa-

tion scores from the questionnaires, was nonsignificant. Results of the t-test showed no significant difference among the two groups as measured by the "child interviews" administered to the mothers.

The results obtained from the two separate data sets were different. As this study used mainly the observation method, the results of the analysis from the observations were accepted. Therefore hypothesis 2 which stated that children attending educationally oriented preschool programs would obtain higher scores in social participation dimension than children in custodial care programs was supported.

To test hypothesis 3 which stated that children attending educationally oriented preschool programs would engage in more autonomous behaviour than children in custodial care programs, again the data obtained from observations and questionnaires were analyzed separately (Separate t-tests were done for the total autonomy scores obtained from the observations and questionnaires).

The comparison of total autonomy scores are shown in Table 5.

TABLE 5

Comparison of Total Autonomy Scores

Source	Group	n	Mean	Standard Deviation	t	df	p
Observation Data	Custodial	60	19.81	14.53	1.44	117	.15
	Educational	59	23.18	10.64			
Questionnaire Data	Custodial	60	55.30	6.30	-.64	117	.52
	Educational	59	54.52	6.98			

The t-values obtained for the total autonomy scores from the observations and from the questionnaires were both nonsignificant. Therefore hypothesis 3 which stated that there was a significant difference among the autonomy scores of subjects enrolled in educational preschool programs and custodial preschool programs as measured by the observations and questionnaires was rejected.

Hypothesis 4 stated that the 5 year old children would show higher levels of social participation greater complexity of behaviour and higher level of autonomy than 3 year old children. Five separate t-tests were done to determine the difference in the autonomy, complexity and social participation scores of 3 year and 5 year old subjects as measured by the observations and questionnaires.

The comparison of total complexity of behaviour scores of 3 and 5 year old subjects are shown in Table 6.

TABLE 6

Comparison of Total Complexity of Behaviour Scores of 3 and 5 Year Old Subjects

Group	n	Mean	Standard Deviation	t	df	p
3 years	59	84.15	15.64	3.15	117	.002
5 years	60	93.21	15.78			

The t-value obtained for total complexity of behaviour scores indicated a significant difference between the 3 and 5 year old children with 5 year old subjects scoring significantly higher than 3 year old subjects. The results thus further validated the complexity of behaviour scale.

The comparison of total social participation scores of 3 and 5 year old subjects are shown in Table 7.

TABLE 7

Comparison of Total Social Participation Scores of 3 and 5 Year Old Subjects

Source	Group	N	Mean	Standard Deviation	t	df	p
Observations	3 years	59	106.81	23.25	4.42	117	.0001
	5 years	60	127.03	26.53			
Questionnaires	3 years	58	19.75	4.61	2.45	116	.016
	5 years	60	21.66	3.84			

The t-values obtained for the total social participation scores from the observations and from the questionnaires were both significant. The results of the analysis thus

indicated a significant difference between the total social participation scores of 3 year old and 5 year old children with 5 year old subjects scoring significantly higher than 3 year old subjects in this dimension. This expected increase with age was a further evidence for the validity of the Social Participation scale.

TABLE 8

Comparison of the Total Autonomy Scores of 3 and 5 Year Old Subjects

Source	Group	N	Mean	Standard Deviation	t	df	p
Observations	3 years	59	16.13	11.72	4.95	117	.0001
	5 years	60	26.75	11.69			
Questionnaires	3 years	59	52.35	6.97	4.50	117	.001
	5 years	60	57.43	5.20			

The t-value obtained for the total autonomy scores from the observations and from the questionnaires were both significant. The results of t-test analysis thus indicated a significant difference between the total autonomy scores of 3 year and 5 year old subjects with 5 year old subjects scoring significantly higher than 3 year old subjects in autonomy dimension as measured by the observations and questionnaires.

The results of analysis of data obtained for both the observations and questionnaires yielded highly significant differences in the predicted direction between the two groups in terms of their total social participation, complexity and

autonomy scores. Therefore, hypothesis 4 which stated that the 5 year old children would show higher level of social participation, greater complexity and autonomy than 3 year old children was supported.

The statistical analysis done on the basis of total scores for the data obtained from observations yielded significant results - except for autonomy, dimension - in support of the hypotheses put forward. The results of the analysis conducted on the observation data revealed that the children attending educationally oriented centers showed more complex behaviours and greater social participation than the children attending custodial preschool centers. However the analysis of data from the questionnaires on these same two dimensions did not yield significant results. Thus observations were found to be more sensitive and discriminating measures than questionnaires. Mothers probably were not able to differentiate among different categories and respond reliably. The age differences were significant in the expected direction for all of the three dimensions as measured by both the questionnaires and observations indicating a significant relation between age and complexity, autonomy and social participation.

B. ANALYSIS OF LEVELS OF SOCIAL PARTICIPATION, COMPLEXITY OF BEHAVIOUR AND AUTONOMY

To examine how specific behaviours varied according to the setting and age further comparisons were conducted with specific behavioral categories in order to gain additional knowledge and insight to total scores. With this aim a detailed analysis which consisted of a series of t-tests were done for each behaviour variable defined independently in complexity of behaviour, social participation and autonomy dimensions. The results in relation to orientation of the centers are summarized in Table 9.

The results of the t-test analyses done for social participation dimension between subjects attending custodial and educational preschools in terms of their frequency of involvement in "onlooker behaviour" showed significant differences in the predicted direction. Subjects receiving custodial care showed lower degree of social involvement significantly more than subjects receiving educational care. The results of the t-tests done for other levels of social participation dimension described in order of increasing social involvement also yielded substantial significant differences among the 2 groups in the predicted direction.

TABLE 9

Group Means, Standard Deviations and t-test Results Showing the Relation Between Type of Centers and Levels of Social Participation, Complexity and Autonomy

	Custodial		Educational			
	$\bar{X}$	SD	$\bar{X}$	SD	t	p
SOCIAL PARTICIPATION						
Onlooker behaviour	22.46	9.79	14.25	7.70	5.08	.0001*
Solitary activity	9.18	6.57	13.79	7.46	3.58	.001*
Parallel activity	8.20	7.12	10.62	8.59	1.68	.09
Weakly organized social activity	8.88	6.24	7.49	4.67	1.37	.17
Cooperative social activity	1.21	2.65	3.74	4.96	3.48	.001*
COMPLEXITY						
No activity	22.46	9.79	14.35	7.84	4.98	.001*
Single activity	23.25	8.59	18.32	7.39	3.45	.001*
2 related activities	3.81	4.5	5.96	6.92	2.01	.04*
More than 2 related activities	.45	1.33	1.16	2.05	2.27	.02*
AUTONOMY						
Project initiative	1.13	.26	1.23	.24	.29	.77
Independent activity	14.55	12.43	20.5	10.09	2.87	.005*
Social initiative	2.31	3.15	.81	1.22	-3.42	.001*
Self-care	1.28	1.89	.98	1.53	- .95	.34
Persistence	.20	.57	.10	.44	-1.04	.30
Assertion of rights	.31	.56	.25	.51	- .63	.53
Dependence on adults	.33	.85	.79	1.36	-2.22	.02*

*Significant results.

The t-value obtained for "solitary activity" was significant and indicated that children in maintenance oriented preschools were involved in this type of activity significantly more than children in educationally oriented preschools.

The t-value obtained for parallel activity was nonsignificant. The t-value obtained for "cooperative social activity" was highly significant and showed that children receiving educational care were involved significantly more in this most advanced type of interactive behaviour than children receiving custodial care. Therefore the results indicated that the subjects attending educationally oriented preschools were involved significantly more in categories describing higher social involvement and significantly less in categories describing decreased sociability. Thus significant total score differences were mainly due to extreme categories.

The results of the t-tests done for "complexity of behaviour" dimension showed highly significant differences between subjects attending custodial and educational preschools in terms of their involvement frequencies in all the subcategories in the predicted direction. The t-value obtained for the subcategory "no activity" was very significant. The result of this analysis thus indicated that the subjects attending custodial centers were involved significantly more in this least complex level than subjects attending educationally oriented centers. The t-values obtained for "single activities" "2 related activities" and "more than 2 related activities" -in order of increasing complexity- were all significant and thus indicated that the subject receiving educational preschool care displayed more complex behaviours. Thus significant total scores reflect significant differences on

each category. The results thus showed that there were significant differences among the two groups and that subjects receiving educational preschool care were involved significantly more in categories described by higher complexity and significantly less in the category described as least complex.

The results of the t-tests done for autonomy dimension mostly did not yield significant results in line with the analysis carried on the basis of total scores. However, there was a significant difference in the expected direction in the category "independent activity". The t-test value obtained for this category was significant and indicated that the subjects enrolled in educationally oriented preschools displayed more independent activities than subjects in maintenance oriented preschools. There were also significant differences among the two groups in terms of their involvement frequencies in categories "social initiative" and "dependence on adults". However the absolute values were very low and the direction of differences were contrary to the expectations in both cases.

The results of a series of t-test analyses conducted for each behaviour variable in relation to age of subjects are summarized in Table 10.

TABLE 10

Group Means, Standard Deviations and t-test Results Showing The Relation Between Levels of Social Participation, Complexity, Autonomy and Age of Subjects

	3 YRS		5 YRS			
	$\bar{X}$	SD	$\bar{X}$	SD	t	p
SOCIAL PARTICIPATION						
Onlooker Behaviour	21.12	10.39	15.68	8.18	3.19	.002*
Solitary Activity	13.20	7.93	9.76	6.39	2.60	.01*
Parallel Activity	6.08	6.04	12.66	8.28	4.94	.001*
Weakly Organized Social Activity	7.88	5.43	8.50	5.67	.61	.54
Cooperative Social Activity	1.66	2.92	3.26	4.97	2.14	.03*
COMPLEXITY						
No Activity	21.22	10.44	15.71	8.19	3.20	.002*
Single Activity	24.77	9.52	26.73	7.03	1.27	.20
2 Related Activities	3.20	4.45	6.53	6.68	3.19	.002*
More Than 2 Related Activities	.62	1.53	.98	1.95	1.11	.27
AUTONOMY						
Project Initiative	1.49	2.33	.88	1.47	-1.70	.09
Independent Activity	12.28	9.74	22.63	11.19	5.37	.0001*
Social Initiative	1.20	1.71	1.93	3.06	1.60	.11
Self-Care	.93	1.43	1.33	1.96	1.27	.20
Persistence	.22	.58	.08	.42	-1.46	.14
Assertion of Rights	.37	.61	.20	.44	-1.76	.08
Dependence on Adults	.47	1.19	.65	1.11	- .83	.41

*Significant Results

The results of the t-test analyses done for social participation dimension for 3 and 5 year old subjects showed significant differences among the two groups in terms of

their involvement frequencies in all the subcategories - except weakly organized social activity - in the predicted direction. The t-value obtained for "onlooker behaviour" and "solitary activity" were both highly significant in the predicted direction with 3 year olds being involved in these categories showing little social involvement compared with the 5 year olds. The t-value obtained for "parallel activity" and "cooperative social activity" (the highest level in social participation scale) indicated highly significant differences among the two groups with 5 year old subjects being involved significantly more in these more advanced type of interactive behaviour. The results thus showed that the 5 year old subjects were involved significantly more in categories described by higher social involvement and significantly less in categories described by decreased sociability than 3 year old subjects. This expected difference with regard to age was a further evidence for the validity of the social particapiton scale.

The results of the t-test analyses done for complexity of behaviour dimension showed that 3 year old subjects were involved in the behaviorally least complex category of "no activity" significantly more than 5 year old subjects as was predicted. The group means for the levels "single activities" "2 related activities" and "more than 2 related activities" in order of increasing complexity were all in the predicted direction further validating the complexity

scale. These results indicated that 5 year old subjects were engaged more in these behaviorally more complex categories than 3 year old subjects. Although the results of the t-test analyses were not significant for the most complex category "more than 2 related activities" the t-value obtained for the level "2 related activities" was highly significant and indicated an important difference between the two age groups.

The series of t-test analyses carried out for autonomy dimension in general did not yield significant results. Again the only significant difference in the expected direction was found in the category "independent activity", showing that the 5 year old subjects displayed more independent activities than 3 year old subjects. Similar results have been reported before by Ergün (1984). This category appears to be the most discriminating category. Although the group means indicated that 5 year olds showed more social initiative and engaged more in self-care activities than 3 year olds, the group means were in the reverse direction for other categories in this dimension. The possible reasons will be discussed in the following section.

IV. DISCUSSION

A. CONCLUSIONS AND DISCUSSION

The findings of the study support the expectations regarding the positive effects of educationally oriented preschool centers on cognitive and social development. The results of the observation data revealed that children attending educationally oriented preschools obtained significantly higher scores in complexity of behaviour and social participation dimensions than children attending custodial preschools. However no significant differences were found between the two groups in the autonomy dimension. Age related changes on the measured aspects of cognitive, social and emotional development were in the expected direction. The results showed that the total social participation, complexity of behaviour and autonomy scores of 5 year old subjects were higher than that of 3 year old children. The results of the analyses on the two separate data sets (questionnaires and observations) did not correlate with each other. While the observation data revealed significant differences among the groups in terms of their total scores in complexity of behaviour

and social participation dimension in support of the hypotheses put forward, these findings were not replicated by the questionnaire data. Specific behavioral categories were also compared in order to find out if certain categories of behavior more than others were responsible for the results obtained with total scores. This additional detailed analysis further revealed that the children in educationally oriented centers displayed behaviours relatively more complex and higher in social and cognitive content compared to children in maintenance oriented centers. Age related changes in terms of complexity and sociability of behaviours displayed by children were also in the predicted direction for these two dimensions. However the results did not indicate any relation between the specific behaviour categories of the autonomy dimension, the particular orientations of the centers (Maintenance/Educational) and the age of subjects. The direction of differences in some cases was found to be contrary to the expectations.

The differences observed between the subjects on the complexity of behaviour dimension was attributed to the favourable effects of education-oriented preschools on cognitive development. Many studies, discussed in the introduction section, reported improvement in cognitive development after preschool attendance. However one should not forget that all these preschool programs were specially designed to offer education. One cannot expect the same out-

come from preschool centers that provide only custodial care. Indeed studies that reported differences as a consequence of different orientations in the nursery settings (Tizard et.al. 1976; Bekman, 1982) found that educationally oriented pre-school centers enhanced cognitive development as measured by complexity of behaviour (Bekman 1982). It is not surprising to find low levels of behavioral complexity in centers where there are no set educational objectives, where the emphasis is on maintenance activities and where the amount of provision and facilities are low. As was expected, children attending such custody oriented preschool centers, where they were expected to sit quitely during most of the day in an unstimulating environment without sufficient equipment to play with or personnel to guide their activities, obtained significantly lower scores in complexity of behaviour dimension which indicated relatively restricted cognitive development.

The differences observed between subjects in terms of social participation was also attributed to the favorable effects of education oriented preschools. Higher scores obtained in this dimension indicative of higher levels of social involvement and interaction by the children enrolled in education oriented preschools indicated that these centers provided more favorable social environments and enhanced the social development of children. These findings are not surprising when one considers the characteristics of custodial

and educational centers (mentioned in method section). It is clear that the environment provided by maintenance oriented centers is, in Prescott's (1973, cited in Lawrence 1980) terms, a "closed structure" environment characterized by a "pressure indicating type of adult input, high adult child ratio, low levels of adult attention, low levels of adult facilitation etc..." In such an environment where children are not free to choose, where adults spend a lot of time emphasizing rules and closing off possibilities, children are naturally inhibited in social relations. And indeed in support of this interpretation other studies that have compared the impact of different preschool environments with regard to the social behaviour of children found more unsocial behaviours (Huston-Stein et.al. 1977) and less time spent in peer interactions (Reuter and Yunik, 1973) in highly structured centers. By contrast, the environment provided by education oriented preschool centers is an open structure environment which facilitated peer interactions. The positive effects in the social domain of this type of care were reflected in the total social participation scores of children attending educational centers. These findings were also in line with results of Bekman (1982) who reported more social behaviour in education oriented preschool centers.

No statistical differences were observed between subjects enrolled in educational and maintenance oriented preschools in terms of their total scores in the autonomy

dimension. This finding was surprising since we expected less autonomous behaviours in custodial preschool centers which provide a highly structured environment with high adult conformity pressure. The results of the analysis which isolated and examined the specific behaviour categories of the autonomy dimension also revealed no significant relations between the categories of autonomy dimension and types of preschool centers. The only significant difference in the expected direction was found in the category "independent activity". This category was found to be a highly differentiating category where the behaviour of children attending educationally oriented and maintenance oriented preschools consistently differed from each other. It was a more inclusive category so it was used more often than other categories.

Although the differences were not significant the results also indicated that the children attending educationally oriented preschool centers showed more "project initiative" than children enrolled in custodial preschools. These 2 behaviour categories of autonomy can be considered task related behaviours, therefore it may be that children attending educational preschools where the emphasis is on education oriented activities engage more in these task related behaviours more often than children attending custodial centers where there are no opportunities and materials that provide opportunities for task related activities.

The results also revealed that the children enrolled

in custodial preschool centers showed significantly more social initiative and significantly less dependence on adults. However the exact figures were too low to produce reliable information. These findings are contrary to the expectations and are in conflict with the studies of Gewirtz and Huston-Stein (Gewirtz 1956, cited in Lawrence, 1980) who had found that when adult attention was constantly available (which is the case in educationally oriented preschool centers) children showed less dependence. The findings in this study showed that children in education oriented preschool centers where there is a low adult child ratio, indicative of more adult presence, show more dependence than children in custodial preschool centers where there is a high adult-child ratio and adult attention is not constantly available. The findings are also in conflict with the findings of Huston-Stein who report more unsocial behaviours in structured settings. In the present study there was significantly more occurence of "social initiative" in custodial preschool centers which have a highly structured regime. Also the results revealed no significant differences among the two groups in terms of their mean involvement frequencies in the category "persistence". Even a reverse relation was observed. These findings contradict the findings of Berk (1971, cited in Smith and Connolly, 1980) who reports that children attending preschools with free play regimes are more persistent. A number of interpretations of these unexpected findings can be made. It may be that in a deprived environment and especially with

low level of adult attention children are left to their own resources. The reverse trend seen in "persistence", "assertion of rights" and "dependence on adults" can be explained in this way. That is, children in custodial preschool centers had to show persistance (eg replacing a block that has fallen down) because during their free play periods they are given very few materials (e.g. 3 pieces of puzzles) and as they don't have anything else to play with they redo, rearrange the few materials they have and are considered to be persisnet by the observers because they are distracted less by other play materials. By contast the children enrolled in educational preschools have access to a variety to toys and materials and therefore are distracted more and are less "persistent" with any one activity. Also the lack of toys and materials can explain the higher occurrence of "assertive" behaviours shown by children in custodial preschools. These children are obliged to be assertive, to preserve what they have because if they loose the three blocks they have they are left with nothing. By contrast the children in education oriented preschools are not that much in need of asserting their rights, because they can easily get involved in one of the many available activities. This phenomenon may also explain the highly significant occurence of social initiative in custodial centers. The children who are expected to sit most of the time in their chairs and are not given any toys may initiate social interactions with their peers out of boredom. In fact Smith (cited in Smith and Connolly, 1980) reported

that when toys were reduced in a center children responded to these changes with increased sociability. Also it may be thought that the children attending custodial centers were less dependent on adults because they had learned through experience that their dependency bids were unanswered. So it may be speculated that the custodial school environment which deprived the children in the quality and amount of materials, facilities and opportunities for adult-child interaction increased the incidence of peer interaction as well as certain behaviour categories in autonomy dimension.

The results of the observation data revealed that the total autonomy scores of 5 year old subjects were significantly higher than those obtained by 3 year olds. As many studies have shown, age related changes in the social-emotional area is an expected result. When the specific behaviour categories of autonomy dimension and how these related to the age of the subjects were investigated, no significant differences between the 3 and 5 year olds were found. The only significant difference in the expected direction was again found in the category "independent activity" which was found to be highly differentiating between the two groups. Also reverse trends in the categories "persistence", "assertion of rights" and "dependence on adults" were noted. The findings for the sub-category "independent activity" were highly significant. And it was observed from the data that this category was the most frequently used category. As the total scores for this

dimension were computed by adding up the total number of occurences in each subcategory the high number of occurrences in the category "independent activity" caused the reverse trends seen in other subcategories not to be reflected in the total autonomy scores. So, in short, when we consider the results obtained from specific behaviour categories of autonomy dimension no significant relations among these categories and age of the subjects are found.

As no significant relations between the specific behaviour categories chosen as indicators of autonomy and particular aims (Maintenance/Educational) and age of the subjects were found, it seems more likely that factors which are often influential in the development of these behaviours not yet readily apparent are those which occur in the family. Therefore without a thorough knowledge of the family and home context of a child clearcut judgements about the above results can not be made. Also the extent to which these categories reflect autonomy is questionable; because natural developmental gains that should have taken place with increasing age could not be observed in this study for this dimension.

It had also been hypothesized that 5 year old children would obtain higher scores than 3 year old children in social participation and complexity of behaviour dimensions. The results of the analysis on the total scores revealed highly significant differences among the 3 and 5 year old subjects in support of the hypotheses. The differences observed were

attributed to the growing social and cognitive skills and general developmental gains in social and cognitive abilities with increasing age. In fact, many studies have shown age related changes in social and cognitive development. Eckerman, Whatley and Kutz (1975, cited in Mueller and Brenner, 1977), Blurton-Jones (1973, cited in Bekman, 1977), Parten (1933) all have reported that social interaction increases as the child gets older. Mueller and Brenner (1977) regarded social interaction as a growing social skill and not only the product of age. They have shown that children become increasingly social with each other between their first and second birthdays. Rardin and Moan (1971) also found that measures of socialization and measures of physical concept attainment increase progressively from kindergarden through third grade. Thus the findings of the present study are in line with the previous studies and higher scores obtained by the 5 year old children in social participation and complexity of behavior dimensions reflect higher levels of cognitive and social competence attained by this age group.

In this study it was hypothesized that the data obtained from observations and questionnaires on social participation and autonomy dimensions would correlate. This was not found to be the case. That is, the actual observations showed differences between children attending custodial and educational preschool centers in the social participation dimension, while the perceptions of the mothers about their children's behaviour conflicted with the observations. This discrepancy

can be due to the construction of the questionnaire, or the mothers could have had difficulty with the questionnaire, or it might be a representation of the different behaviours exhibited in different contexts (Fein, 1978). In the present study all of the subjects were from low SES families living in shanty town areas. Therefore the home contexts of the children were very similar. Whereas the types of the centers that the children attended were different and it can be for this reason that the questionnaire did not reveal any significant differences among the groups while the observations done in settings with very different environmental characteristics revealed significant findings. This interpretation seems more viable as "it has seldom been possible to relate the behaviours of children observed in nursery schools to their everyday behaviour outside the school prior to, during or after they have been in nursery school" (Raph et.al., 1968, p.145).

The specific behaviour categories in social participation and complexity of behaviour dimensions were also examined in relation to orientation of the centers and age of the subjects. The influence of the type of center were observed in both of these variables. It was observed that the structure and facilities of the centers affected the occurence of particular types of behaviour. Onlooker behaviour which is assumed to reflect a low level of cognitive and social development was displayed significantly more by children

subjects attending custodial preschool centers. On the contrary the variable "cooperative social activity" which reflects a developed level of social participation was displayed significantly more by children attending education oriented preschools. It can thus be concluded that high quality center care, that permits interpersonal rapport between children in providing opportunities for social interaction is beneficial for the development of social relations between children.

In the complexity of behaviour dimension, the variable "no activity" which reflects the lowest level of cognitive development, was displayed significantly more by subjects attending custodial preschool centers. By contrast, all other levels in order of increasing complexity in this dimension were involved in significantly more by subjects attending educational centers. These results were attributed to the favourable effects of education oriented preschool centers on cognitive development.

In summary the findings revealed that children in educationally oriented centers displayed behaviours that were more complex and higher in social and cognitive content compared to children in maintenance oriented preschools. These differences can be attributed to the different educational orientation, provision and facilities provided by centers with different orientations.

In line with the social play research of Parten, who indicated a decrease in solitary play with increasing age and a corresponding increase in associative and cooperative play, the results of this study showed a significantly lower degree of occurrence of onlooker behavior and solitary play and a significantly higher level of occurence of cooperative social activity among the 5 year old children. The reverse was true for 3 year old children. These results are also in line with Barnes (cited in Bekman, 1982) and Tizard et.al (1976). Similarly in the complexity of behaviour dimension the least complex level "no activity" was significantly more often shown by 3 year old children. And 'two related activities' which reflect higher level of complexity were significantly more often shown by 5 year old subjects. These findings are in line with the findings of Tizard et.al. (1976) and can be attributed to growing social and cognitive skills and general developmental gains in social and cognitive abilities.

The implications of the findings discussed above lend support to other research which points to the effectiveness of educationally oriented preschool care and depressing effects of custody care. This finding should encourage day care administrators to consider implementing curricula which are similar to those found in education-oriented preschools.

B. LIMITATIONS OF THE STUDY

The limitations include the following:

1. Generalizability is limited to similar populations as the participants in the programs were from low SES families.
2. Observation reliability checks were done only during the pilot study and were not repeated during the course of the study.
3. Among the measures of child behaviour levels of social participation and complexity were quite satisfactory. However higher levels in complexity dimension did not fully differentiate and reflect the complexity of children's behaviours, because they had too high a ceiling and had to be collapsed later in the study.
4. Among the measures of child behaviours the subvariables of the autonomy dimension did not fully reflect the autonomy of children's behaviour.
5. In the observations, the number of behaviour codes was too many. This caused high number of occurences in some of the categories and few instances of occurences in other categories. This was compensated by collapsing some of the categories. A smaller number of behaviour codes (especially for complexity of behaviour dimension) at the start would have been better.
6. The interviews did not seem to produce reliable information.

The actual observations showed difference between children attending custodial and educational centers. However, the stated beliefs by the mothers about their children's behaviour conflicted with the observations. This discrepancy might have been due to the construction of the questionnaire.

C. RECOMMENDATIONS

The following recommendations are made for further research:

1. This study should be replicated using a larger sample representing a similar population.
2. A modification of this study is recommended using other behaviour variables as a measure of autonomy.
3. An investigation should be conducted using different instruments that measure social participation and complexity of behaviour, as such a study may provide further information about the measurement of these areas of development.
4. Similar studies should be conducted using samples of children from different socio-economic backgrounds.
5. Different children may be affected differently by the same environment. Research regarding individual differences may provide a more complete understanding.
6. The present study assessed only behavioral complexity, social participation and autonomy. Assessment of other social and emotional characteristics, physical, cognitive development and language development of children from various backgrounds would provide a more complete understanding of possible effects of preschools with different orientations.

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APPENDIX 1

INTERVIEW-SHEET FOR THE HEADMASTERS

- MÜLAKAT FORMU -

1. OKUL ADI _____
2. ÇALIŞMA SAATLERİ _____
3. HANGİ YAŞ GRUPLARINA SERVİS VERİYOR? _____
4. ÇOCUK SAYISI _____
5. ÖĞRETMEN SAYISI _____
6. YARDIMCI SAYISI VE NİTELİĞİ _____

   _____
7. GRUP SAYISI _____
8. GRUPLARDAKİ ÇOCUK SAYISI _____
9. GRUPLARDAKİ ÇOCUK-ÖĞRETMEN ORANI _____
10. ÇOCUKLAR ÜNİFORMA GİYİYORLAR MI? _____
11. VELİLER NEREDEN (FABRİKA İŞÇİLERİ, ÇEVREDEN) _____

    _____
12. GÜNLÜK PROGRAMINIZ NEDİR? _____

    _____
13. EĞİTSEL FAALİYETLERİNİZ NELERDİR? _____

    _____
14. SERBEST OYUN SAATLERİNDE ÇOCUKLAR NE TÜR ETKİNLİKLER YAPARLAR? _____

    _____
15. BU SAATLERDE ÇOCUKLARA NE TÜR ARAÇ GEREÇLER VERİLİR? _____

    _____
16. GRUP FAALİYETLERİ NELERDİR? NE SIKLIKTA? (Her söylenen faaliyet için sorulur) _____

    _____
17. ÇEVREYE GEZİLER DÜZENLİYOR MUSUNUZ? NE GİBİ? NE SIKLIKTA? _____

    _____
18. ÇOCUKLARA ÇEŞİTLİ MESLEK GRUPLARINI TANITMAYA ÇALIŞIYOR MUSUNUZ? _____

    ÖĞRETMEN

    HEMŞİRE

    POLİS v.s.

19. ÇOCUKLAR; UYGULANAN FAALİYETLERE KATILIP KATILMAYACAKLARINA KENDİLERİ Mİ KARAR VERİYORLAR ÖĞRETMEN Mİ? _____

20. ÇOCUKLAR MEVCUT OYUNCAK, ARAÇ, GEREÇLERDEN HANGİLERİNİ İSTEDİKLERİ ZAMAN KULLANIRLAR, HANGİLERİNİ ÖĞRETMEN DAĞITIR? _____

_____

21. ÇOCUKLARA BİREYSEL OLARAK MI YOKSA GRUP HALİNDE Mİ YAKLAŞIYORSUNUZ?
   - Bütün çocukların aynı etkinlikte aynı anda yer almasını istiyor musunuz?
   - Bir etkinlikten diğer bir etkinliğe geçişte çocuklar birbirlerini beklerler mi?

22. UYGULADIĞINIZ/BENİMSEDİĞİNİZ DİSİPLİN YÖNTEMLERİ NELERDİR? NE GİBİ DURUMLARDA UYGULARSINIZ? _____

_____

23. ÖĞRETMENLERİNİZİN BU PROGRAMDAKİ ROLÜ NEDİR?
   a) Programın planlanması
   b) Yöneltilmesi
   c) Uygulamada çocuklarla eş düzeyde paylaştıkları etkinlikler oluyor mu? Neler?
   d) Çocuklar öğretmenlere nasıl hitap eder?

24. AİLELERLE NASIL İLİŞKİNİZ VAR?
   - Ne gibi durumlarda anneler size gelir?
   - Ne gibi durumlarda siz onları çağırırsınız?

APPENDIX 2

OBSERVATION SHEET OF THE PRESCHOOL CENTERS

- GÖZLEM FORMU* -

A. FİZİKSEL NİTELİKLER

1- Okul binası kaç katlı? _____

2- Gruplar bağımsız mı? _____

3- Çocukların kullandıkları eşyalar onların boyutlarında mı? _____

- Sandalye
- Masa
- Tuvaletler vs.

4- Bu eşyalar çocuk sayısı ile orantılı mı? _____

5- Çocukların özel eşyalarını koyacak bölümler var mı? _____

6- Bahçe var mı? _____

7- Gruplardan bahçeye çıkış var mı/veya ? _____

8- Bahçeye ulaşmak çocuklar için kolay mı? _____

9- Isınma nasıl oluyor? _____

10- Yapay ve doğal aydınlatma yeterli mi? _____

B. YUVADA KULLANDIĞI GÖZLENEN ARAÇ-GEREÇ LİSTESİ

1- "Yaratıcı Sanat Etkinlikleri" İçin Kullanılan Araç ve Gereçler

- Resim sehpası _____
- Pazen kaplı tahta _____
- Kukla için taşınabilen oyun sehpası _____
- Boya:
  - . Sulu
  - . Toz
  - . Krayon
  - . Kuru
- Makas
- Boya fırçası
- Kağıt, çeşitli
- Kil
- Yoğurma maddeleri
- Diğerleri - artık materyaller

---

*Gözlem süresi içinde gözlenemeyenler sorulabilir.

2- "Müzik Etkinlikleri" İçin Kullanılan Araç ve Gereçler

Davullar _____

Ziller _____

Kaşıklar _____

Üçgenler _____

Marakas _____

Flüt _____

Tefler _____

Tahta _____

Armonika _____

Dümbelek _____

Radyo _____

Teyp _____

Pikap _____

3- Blok Köşesi

Bloklar, Çeşitli:

Büyük _____ Küçük _____ Silindir _____

Üçgen _____ Tam Çubuk _____ Yarım Çubuk _____

Dörtte bir çubuk ___ X.Y. biçiminde sopalar___ Eğimli Blok _____

Çatı blokları

4- Evcilik Köşesi ve Temsili Oyun Köşesi

Bebekler _____ Bebek yatakları _____

Bebek arabası _____ Battaniyeler, şilteler ve yastıklar _____

Evcilik oyunu için eski plastik eşya _____

Ufak masa ve sandalyeler _____ Dolap _____

Tahta oyuncak _____ Fırın _____ Oyuncak telefon _____

Mutfak araçları _____ Temizlik araçları _____

Çeşitli erkek/kadın giysileri _____ Silifonlar _____

Çeşitli meslekleri simgeleyen giysiler:

Dr. çantası ve giysileri _____ Hemşire başlıkları _____

İtfaiyeci _____ Kaptan, subay şapkaları _____

Kaptan, subay şapkaları _____

Değişik zorluk seviyesinde tahta bilmeceler _____
Resimleri eleştirmeli oyunlar _____
Ufak blok takımları _____
Renkli tahtadan sayma boncuklar _____
Marangoz aletleri _____

Su Oyunlarında Kullanılan Araç ve Gereçler

Ufaktestiler _____ Süzgeçli kovalar _____
Çeşitli boyutlarda taslar, leğenler _____ Plastik şişeler _____
Kepçeler _____ Kamışlar _____ İlaç damlalıkları _____
Şampuan şişeleri _____ Huniler _____ Süzgeçler _____
Yumurta çırpıcısı _____ Fırçalar _____ Hortumlar _____
Sabun (kalıp veyatoz) _____

Açık Hava Etkinliklerinde Kullanılan Araç ve Gereçler

Çeşitli boyda toplar _____ Çemberler _____ İp atlamak için kalın ipler _____ Kum havuzu _____ kovalar _____ Kaplar _____ Kaşıklar _____ Ufak tabak-çanak _____ Tırmanma merdivenleri_____ İp ya da tahta merdiven _____ Bisiklet _____ İp ve bahçe hortumu _____ Otomobil tekerlekleri _____ Denge tahtası _____ atlama beygiri/tırmanma beygiri _____ Salıncaklar _____ Tahtaravalli _____ Kaydırak _____ Oyun sandıkları _____

Doğa ve Fen Bilgisi Vermek İçin Kullanılan Araç ve Gereçler

Mıknatıslar _____ Büyüteçler _____ B.boy bahçe ve oda termometresi ___ Cetveller _____ Ölçü aletleri _____ El aynaları _____ Makaralar, dişliler, vidalar, somunlar, kancalar _____ Hayvan köşesi _____

Kitap Köşesi

Çeşitli hikaye kitapları _____ Mecmualar _____

C. YUVADA GÖZLENİLEN ETKİNLİKLERİN LİSTESİ

1- Yaratıcı Anlatım ve Sanat Etkinlikleri

Bloklar ve küplerle yapılan faaliyetler _____

Kil ve diğer yoğurma faaliyetleri _____

Evcilik köşesi faaliyetleri _____ Kum oyunu _____

Su oyunu _____ Tahta işleri _____

Boyama ve Başka Resim Etkinlikleri

Sulu boya _____ Parmak boyası _____ Çıkartma boyası _____

Sabun boyası _____ Mum boya, tebeşir, boya kalemi _____

Ruloya sarılmış ip baskı _____ Kumaşa boya damlatma _____

Simetrik desen çıkartma _____ İpe dizme _____ Çizgi çizme faaliyeti_____

Kesme yapıştırma işleri _____

2- Temsili Oyunlar

Evcilik köşesindeki oyunlar _____ Dramatize edilen hikayeler ve oyunlar _____ Kukla oynatımı _____ Sembolik oyunlar _____

3- Müzik Etkinlikleri

Müzikli-müziksiz hareket _____ Çalgı çalma etkinliği _____

Müzik dinlemek _____ Şarkı söylemek _____

4- Doğa ve Fen Bilimleri Etkinlikleri

Fizik çevreyle ve konularla ilgili örnekler:

Taşıtlar _____ Tabiat hareketleri _____ İletişim araçları _____

Denge tartı _____ Hava durumları _____ Duyusal dereceler _____

Canlılarla İlgili Doğa Bilgisi Örnekleri:

Hayvanlar _____ İnsanlar _____ Bitkiler _____ Yiyecekler _____

5- Bedensel Etkinlikler (Açıkhava ve Oyun Odasında)

Top oyunları _____ Engelli oyun uygulaması _____

Çizginin üzerinden yürüme _____ Karenin ortasına basma _____

Oyun alanını, bahçeyi temizlemek _____

Cambazlık ya da cimnastik minderi hareketleri _____

Kolay cimnastik uygulamaları-bedeni çalıştırma oyunları _____
Açıkhavada organize olmuş oyunlar oynanması _____

6- Dil Geliştirme Etkinlikleri

Kitap okuma _____ Kitap hazırlama _____ Masal öykü anlatma _____
Öyküleri canlandırma _____ Kukla oynatma _____ Parmak oyunları _____
Pazen kaplı tahtada öykü anlatma _____ Resimli anlatma _____
Bilmeceler _____ Tekerlemeler _____ Şiir _____

7- Geziler Tertipliyor musunuz? (Sorulabilir)

Hayvanlarla ilgili gezi yerleri _____
İnsanlar ve çevreleri _____ Doğaya ve mevsimlere göre canlıların, bitkilerin gelişmesini, büyümesini izlemek _____
Taşıtlar ve makinalar _____ Konuk çağrımı _____

D. I. Çocuklar yeni bir etkinliğe grup halinde mi başlıyorlar/bir diğer etkinliğe grup halinde mi geçiyorlar _____

II. Öğretmenler çocukları kesin tavırlara yöneltiyorlar mı, yoksa çocuğu kendi seçimini yapmakta serbest bırakıp gerektiğinde mi önerilerde bulunuyorlar _____

APPENDIX 3

CHILD INTERVIEW (WITH THE MOTHERS)

QUESTIONS RELEVANT TO SOCIAL PARTICIPATION DIMENSION

	Sık sık, Çoğunlukla	Bazen Arada Sırada	Hiç (Pek değil)	DK/NA
4- Çocuklar bir oyun oynarken .....'nin onlara katılmayıp kendi kendine başka birşey oynadığı olur mu? (Erkek için) Mesela çocuklar koşmaca oynarken ..... tek başına top oynar mı? VEYA (Kız için) Onlar evcilik oynarken o tek başına oynar mı?	_____	_____	_____	_____
5- ..... çocuklarla beraberken de onlardan farklı şeyler yaptığı olur mu? Mesela çocuklar tahtaları üstüste koyup ev yaparken ..... tahtalarla başka birşey yapar mı?	_____	_____	_____	_____
6- ..... arkadaşları ile kovalamaca, köşe kapmaca gibi oyunlar oynar mı?	_____	_____	_____	_____
7- ..... arkadaşları ile güreş eder mi?	_____	_____	_____	_____
8- Kar yağdığında ..... arkadaşları ile beraber kardan adam yapar mı?	_____	_____	_____	_____
9- .....'nin arkadaşlarıyla beraber ev, kule gibi şeyler yaptıkları olur mu?	_____	_____	_____	_____
10- ..... arkadaşları ile topu birbirlerine atarak oynarlar mı?	_____	_____	_____	_____

	Sık sık, Çoğunlukla	Bazen Arada Sırada	Hiç (Pek değil)	DK/NA
11- Arkadaşlarıyla evcilik, okulculuk gibi oyunlarda biri anne, biri çocuk, biri öğretmen, biri öğrenci olur mu?	_____	_____	_____	_____
12- Yağ satarım, Bal satarım, Aç kapıyı bezirgan başı, veya Çiftçi çukurdadır gibi oyunlar oynar mı?	_____	_____	_____	_____
13- Diğer çocuklar oyun oynarken .....'nin onlara katılmadan, hiçbir şey yapmadan onları seyrettiği olur mu?	_____	_____	_____	_____

APPENDIX 3

CHILD INTERVIEW (WITH THE MOTHERS)
QUESTIONS RELEVANT TO AUTONOMY DIMENSION

30- Kimse ..... ile ilgilenmediği zaman kendini oyalayıp eğlendirecek bir şeyler bulur mu?

3 ..... sık sık

2 ..... bazen

1 ..... başkasından bekler (başkasının onu oyalaması gerekir)

9 ..... DK/NA

33- Peki böyle resim yaparken size veya bir başkasına "Ne resmi yapayım?" diye sorar mı?

3 ..... kendi karar verir

2 ..... bazen sorar, bazen kendi karar verir

1 ..... genellikle sorar 9 ..... DK/NA

34- .....'e "Kapıyı kapat", "gazeteyi getir" gibi bir şey yapmasını söylerseniz, bu söylediğinizi kendi kendine yerine getirir mi?

3 ..... genellikle

2 ..... bazen

1 ..... nadiren/hiç 9 ..... DK/NA

35- ..... bakkaldan ufak tefek şeyler satın alır mı?

3 ..... sık sık

2 ..... bazen

1 ..... hemen hemen hiç almaz 9 ..... DK/NA

36- İyi havada ..... dışarıda oynar mı?

3 ..... genellikle kimsenin bakmasına lüzum kalmadan

2 ..... bazen kimsenin bakmasına lüzum kalmadan

1 ..... sadece birisi göz kulak olursa

9 ..... DK/NA

37- Evde basit işlere yardım eder mi? (Oyuncaklarını, eşyalarını toplar mı?)

3 ..... çoğu zaman

2 ..... bazen

1 ..... hiçbir zaman 9 ..... DK/NA

38- Komşularınızdan birine giderken

3 ..... kimse arkasından bakmadan tek başına gidebilir mi?

2 ..... sadece arkasından biri bakarsa mı gidebilir?

1 ..... yoksa hiç gitmez mi 9 ..... DK/NA

39- ..... oyun oynamak için eve arkadaş getirir mi?

3 ..... sık sık

2 ..... bazen

1 ..... hiç getirmez 9 ..... DK/NA

40- ..... yeni bir çocukla karşılaşınca ne yapar?

4 ..... önce kendi mi konuşur?

3 ..... bazen kendi konuşup bazen öbürünün konuşmasını mı bekler?

2 ..... öbür çocuğun konuşmasını mı bekler?

1 ..... çocuktan uzak durmaya mı çalışır?

9 ..... DK/NA

41- ..... çevredeki çocuklara gidip onlarla oyun oynamak istediğini hiç söyler mi?

3 ..... sık sık

2 ..... arada sırada

1 ..... pek söylemez 9 ..... DK/NA

42- ..... yüznumaraya gidince

4 ..... hiç yardımsız kendi kendine halledebilir mi?

3 ..... bazen yardım ister bazen yardımsız halleder?

2 ..... biraz yardım etmeniz yeter mi?

1 ..... tamamen sizin yardımınız mı gerekir?

9 ..... DK/NA

43- ..... ellerini
3 ..... çoğu zaman kendi kendine mi yıkar?
2 ..... bazen yardım mı ister?
1 ..... çoğu zaman yardım mı ister? 9 ..... DK/NA

44- ..... kendi kendine giyinir mi?
3 ..... evet, çoğu zaman
2 ..... bazen yardımla giyinir
1 ..... çoğu zaman başkası onu giydirir 9 ..... DK/NA

45- ..... yemeğini
3 ..... çoğu zaman kendisi mi yer?
2 ..... bazen yardımla mı yer?
1 ..... çoğu zaman başkası mı ona yedirir?
9 ..... DK/NA

46- Soba, elektrik prizi gibi tehlikeli şeylerden kendiliğinden hatırlatılmadan uzak durur mu?
3 ..... evet, çoğu zaman
2 ..... bazen
1 ..... nadiren (hatırlatılmak ister) 9 ..... DK/NA

47- ..... birşey yapmaya başladığı zaman -resim yapmak, ayakkabılarını giymek gibi-
3 ..... genellikle bu başladığı işi bitirir mi?
2 ..... bazen bitirir, bazen başka şeyle mi ilgilenir?
1 ..... genellikle bu işi bitirmeden başka bir şeye mi dalar?
9 ..... DK/NA

48- ..... birşey yaparken zorluk çekerse mesela paltosunu iliklerken veya iskemlenin arkasına düşmüş olan bir oyuncağını oradan almaya çalışırken, böyle bir zorluk durumunda
3 ..... çoğu zaman uğraşır mı?
2 ..... bazen mi uğraşır?
1 ..... uğraşmaktan hemen vazgeçer mi? 9 ..... DK/NA

49- ..... nın oynadığı bir şeyi aynı yaştaki başka bir çocuk elinden almaya kalkarsa, ... elindekini vermemeye çalışır mı?

3 ..... çoğu zaman
2 ..... bazen
1 ..... nadiren/hiç 9 ..... DK/NA

50- Çocuklar sırayla bir oyunu oynarlarken, bir çocuk .....'nın sırasını almaya çalışırsa, ... sırasını korumaya çalışır mı?

3 ..... çoğu zaman
2 ..... bazan
1 ..... nadiren/hiç 9 ..... DK/NA

51- Bir oyunun veya işin ortasındayken, ...'yi çağırsanız, oyununu bitirmek için biraz daha izin ister mi?

3 ..... çoğu zaman
2 ..... bazen
1 ..... nadiren/hiç 9 ..... DK/NA

52- ....., olur olmaz şeyler için dikkatinizi çekmeye çalışır mı?

3 ..... sık sık
2 ..... bazen
1 ..... nadiren 9 ..... DK/NA

53- Hergün birçok şey için küçük çocuklar annelerinden yardım ister. Sizce ..... sizden

3 ..... az mı yardım ister?
2 ..... orta karar mı yardım ister?
1 ..... yoksa çok mu yardım ister? 9 ..... DK/NA

54- Siz evde iş yaparken, ... sizin yanınızda dolaşır mı?

3 ..... nadiren
2 ..... bazen
1 ..... çoğu zaman 9 ..... DK/NA

55- ..... mızmızlanıp, kardeşlerini şikayet eder mi?

3 ..... nadiren
2 ..... bazen
1 ..... sık sık 9 ..... DK/NA

APPENDIX 4
COMPUTATION OF THE TOTAL SOCIAL PARTICIPATION SCORE FROM OBSERVATIONS

Values assigned to each of the seven categories:

Onlooker behaviour	(+1)
Solitary activity	(+2)
Parallel activity	(+3)
Weakly organized social activity	(+4)
Cooperative social activity without division of labour	(+5)
Cooperative social activity with division of labour	(+6)
Cooperative social activity with role differentiation	(+7)

The method used to compute the social participation score is as follows:

Out of 50 observations, child A shows onlooker behaviour 28 times, solitary activity 14 times, parallel activity 5 times, weakly organized social activity 2 times, cooperative social activity without division of labor 0 times, cooperative social activity with division of labor 1 time and cooperative social activity with role differentiation 0 times so, his total social participation score is:

(28x1) + (14x2) + (5x3) + (2x4) + (0x5) + (1x6) + (0x7) = 85

Out of 50 observations child B shows onlooker behaviour 10 times, solitary activity 26 times, parallel activity 0 times, weakly organized social activity 7 times, cooperative social activity without division of labour 2 times, cooperative social activity with division of labor 4 times and cooperative social activity with role differentiation 1 time, so, his total social participation score is:

(10x1) + (26x2) + (0x3) + (7x4) + (2x5) + (4x6) + (1x7) = 131

Child B has a higher score than child A; therefore child B is more socially participative than child A.

APPENDIX 5

EXAMPLES OF ACTIVITIES IN TWO DIFFERENT PLAY SITUATIONS WHICH WOULD BE CLASSIFIED IN EACH OF THE CATEGORIES IN COMPLEXITY OF BEHAVIOUR DIMENSION

LEVELS	(A) Play with miniature car	(B) Role playing
1.	Pushes car along table	Pushes pram saying "Quiet baby"
2.	Pushes car on lift in toy garage, winds up lift	Puts doll in pram, pushes pram saying "We're going to park"
3.a)	Pushes car into garage. Winds up empty lift	Pushes pram saying "We're going to the park."
	Hooks trailer on to car. Runs trailer and car down ramp.	Pretends to pick flowers, sits down saying "let's sit on the bench".
3.b)	Hooks trailer on to car. Loads trailer with bricks, pushes into garage, unloads bricks.	Dresses doll, saying, "It's cold, you need a coat". Puts doll in pram. Puts on "mother's hat". Pushes pram, says, "Now we're going shopping.
4.a)	Hooks trailer on to car. Pushes to garage. Unhooks trailer. Winds up empty lift. Runs another car up ramp.	Puts on "mother's hat", says, "I'm Mummy, You're baby". Takes other child by hand, says, "We're going to school". Pretends to offer "child" sweets, sits down, saying "Now we're at aunty's.
4.b)	Hooks trailer on to car. Loads trailer with bricks. Pushes to garage. Unloads bricks. Adds bricks to existing structure inside garage	Says "Here's the bus, let's get on." Pretends to climb on bus. Pretends to offer money for ticket. Says "Sing a ling, time to get off. Pretends to get off.

APPENDIX 6

COMPUTATION OF THE TOTAL COMPLEXITY OF BEHAVIOUR SCORE FROM OBSERVATIONS

Values assigned to each of the seven categories:

- No activity (+1)
- Single activities (+2)
- Two related activities (+3)
- Three or four related activities with not more two coherently related (+4)
- Three of four related activities with at least three coherently related (+5)
- At least five related activities with not more than two coherently related (+6)
- At least five related activities with at least three coherently related (+7)

The method used to compute the complexity of behaviour score is as follows:

Out of 50 observations, child A shows no activity 4 times, single activities 23 times, two related activities 14 times, three related activities with two of them coherently related 4 times, four related activities with three of them coherently related 2 times, five related activities with two of them coherently related 0 times, six related activities with three of them coherently related 3 times, so then, his total complexity of behaviour score is:
$(4x1) + (23x2) + (14x3) + (4x4) + (2x5) + (0x6) + (3x7) = 139.$

Out of 50 observations child B shows no activity 15 times, single activity, 26 times, two related activities 6 times, three related activities with two of them coherently related 3 times, three related activities with three of them coherently related 1 time, five related activities with two of them coherently related 0 times and five related

activities with three of them coherently related 0 times, so then his total complexity of behaviour score is:

$(15x1) + (26x2) + (6x3) + (3x4) + (1x5) + (0x6) + (0x7) = 102.$

Child A has a higher score than child B. Therefore, child A is behaviorally more complex than child B.

APPENDIX 7

COMPUTATION OF THE TOTAL SOCIAL PARTICIPATION SCORE FROM QUESTIONNAIRES

Values assigned to each of the seven categories and questionnaire items that measure these categories are:

Question Number	Categories	Values
13	onlooker behaviour	(+1)
4	solitary activity	(+2)
5	parallel activity	(+3)
6-7	weakly organized social activity	(+4)
8-9	cooperative social activity without division of labour	(+5)
10	cooperative social activity with division of labour	(+6)
11-12	cooperative social activity with role differentiation	(+7)

The method used to compute the social participation score is as follows:

The mother of subject A checks the answer category never for question 13 indicating that her child does not show onlooker behaviour ; the answer category occasionally for questions 4 and 5; the answer category of frequently (always) for question 6 and occasionally for question 7; the answer category of frequently for questions 8, 9, 10, 11 and 12 successively So, the total social participation score of this subject is:

$$\left[(0x1)\right] + \left[(1x2)\right] + \left[(1x3)\right] + \left[(\frac{1+1}{4})x4\right] + \left[(\frac{1+1}{2})x5\right] + \left[(1x6)\right] + \left[(\frac{1+1}{2})x7\right] = 27$$

The mother of subject B checks the answer category occasionally for question 13, occasionally for question 4, never for question 5 and 6,

occasionally for question 7, never for question 8, occasionally for question 9; always for question 10 and never for questions 11 and 12. So, the social participation score of this subject is:

$$\left[(1x1)\right] + \left[(1x2)\right] + \left[(0x3)\right] + \left[(\frac{0+1}{2})x4\right] + \left[(\frac{0+1}{2})x5\right] + \left[(1x6)\right] + \left[(0x7)\right] = 13.5$$

According to the information obtained from their mothers child A has a higher score than child B. Therefore, child A is more socially participative than child B.

HILD: CHILD OBSERVATION RECORDING SHEET SCHOOL: Üsküdar Fatel

GE: SEX: F DATE: 8/2/1983 TIME: 9:45

INUTE	ACTIVITY RECORD	TALK	SOCIAL		COMPLEXITY		AUTONOMY		AGRESSION	
			Code	F	Code	F	Code	F	Code	F
	12 çocuk masalarında oturuyorlar önlerinde kağıt yok. Öğretmenine bakıyor.		0	✓	0	✓	1		1a	
			1		1		2		1b	
			2		2		3		1c	
			3		3a		4		2a	
			4		3b		5		2b	
			5		4a		6		2c	
			6		4b		7			
	Öğretmenin yanındaki arkadaşlarına doğru eğilip sessizce konuşuyor ve salondaki diğer çocuklara bakıyor.		Code	F	Code	F	Code	F	Code	F
			0	✓	0	✓	1		1a	
			1		1		2		1b	
			2		2		3		1c	
			3		3a		4		2a	
			4		3b		5		2b	
			5		4a		6		2c	
			6		4b		7			

APPENDIX 8