AN INVESTIGATION OF PRESCHOOLER'S PLAY PREFERENCES REGARDING THE DESIGN OF OUTDOOR PLAY AREAS

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Approval of the Graduate School of Social Sciences

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ABSTRACT

AN INVESTIGATION OF PRESCHOOLER'S PLAY PREFERENCES REGARDING THE DESIGN OF OUTDOOR PLAY AREAS

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The aim of this study was to investigate the design of preschool outdoor play areas and children's play preferences. Through behavioral mapping method, the study deeply investigated the effects of a design characteristic on children's outdoor play preferences. A total of 102 preschool children were observed during free outdoor play times. During the observations lasted one and a half month, The Playground's Physical Elements and Environmental Characteristics Indicative Scoring Scale and Parten/Piaget Play Recording Form were used to evaluate 6 outdoor play areas in terms of design characteristics, play materials and equipment, and children's play preferences. The findings of the study indicated that the design of the outdoor play area with different design features such as trees, rocks, or bushes would affect the play types and play preferences of children. While traditional play areas with very limited natural elements usually guided children to engage in functional and solitary play, in the play areas with more. While natural elements, children preferred to engage in constructive and creative play more often. Moreover, play areas with more open spaces allowed children to play active games such as running, rolling, or jumping.

Keywords: Early childhood, outdoor play, outdoor play preferences, play area design

ÖZ

OKUL ÖNCESİ DÖNEM ÇOCUKLARININ OYUN TERCİHLERİNİN DIŞ MEKÂN OYUN ALANI TASARIMLARI AÇISINDAN İNCELENMESİ

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Bu çalışma ile dış mekân oyun alanı tasarımlarının ve okul öncesi dönem çocuklarının oyun tercihlerinin incelenmesi amaçlanmıştır. Davranış Haritası yöntemi ile dış mekân oyun alanı tasarımlarının çocukların oyun tercihleri üzerindeki etkisi derinlemesine incelenmiştir. Çalışmada gözlemlenen 6 oyun alanının tasarım özellikleri, oyun materyali ve ekipmanlarının değerlendirilmesi amacıyla Oyun Alanlarının Fiziksel Elemanları ve Çevresel Karakterleri Puanlanma Ölçeği kullanılmıştır. Ayrıca, çalışmada gözlemlenen 102 okul öncesi çocuğun oyun alanı tasarımlarına göre oyun tercihleri Piaget/Parten Oyun Gözlem Formu ile belirlenmiştir. Veri toplama süreci, Eylül ve Ekim aylarında planlanarak yaklaşık olarak bir buçuk ay sürmüştür. Mevcut çalışmanın bulgularına göre, farklı tasarım özelliklerine sahip oyun alanlarının, çocukların oyun tercihlerini etkilediği ortaya çıkmıştır. Doğal tasarım elemanlarından yoksun geleneksel oyun alanları, çocukları daha çok fonksiyonel oyun ve tek başına oyun oynamaya yönlendirmiştir. Ayrıca, belirli bir temaya sahip oyun ekipmanları ve materyalleri çocuklara dramatik oyun oynama şansı tanırken, onların

dramatik oyunları sadece bu ekipman ve materyallerin sahip olduğu tema ile sınırlı kalmıştır. Oyun alanında bulunan ağaç, çalı, taş gibi doğal tasarım elemanları çocuklara yapılandırılmamış oyun oynama ortamı yaratırken, açık alanlar çocukların aktif oyunlar oynamasına fırsat tanımıştır.

Anahtar Kelimeler: Okul öncesi, dış mekan oyun, dış mekan oyun tercihleri, oyun alanı tasarımı

To My Family

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CHAPTER 1

INTRODUCTION

In this chapter, the background of the study, the statement of the problem, the research questions, the significance of the study, and the definitions of terms will be discussed.

1.1. Background of the Study

Play has been discussed for years by educators and philosophers and it has variety of definitions and theories emerged in the literature. With the most basic definition, play is the behaviors shaping the needs and requests of children and children are naturally playful, so they can play anytime and wherever they go (Johnson, Christie, & Yawkey, 1999). It is an enjoyable activity which is emerged spontaneously and managed by children (Anderson-McNamee & Bailey, 2010). While adults can perceive play as a relaxing activity, play is equal to living for young children. It is what they do all day with intrinsically. They cannot differentiate play with working or learning. Additionally, play can be defined as an activity which does not have to result in a product (Mayesky, 2009).

Play has a vital role in children's whole development and it provides children environments in which learning can take place. It is not only beneficial for the health and well-being of the children, but it also supports children's intellectual skills, communicative skills, creativity, and imagination. Therefore, play has an incomparable and vital bond with the development of physical, cognitive and social-emotional domains (Anderson-McNamee & Bailey, 2010; Monsur, 2013; Weisberg, Zosh, Hirsh-Pasek, & Golinkoff, 2013). For instance, while playing with wooden blocks, children use their fine and gross motor skills, problem solving skills and their creativity to build something. At the same time, children can get a chance to talk and interact with other children through which their communication skills are nurtured. Play places and learning settings can be defined as spaces which support different

activities with different kind of toys and materials. Early childhood environments are usually described as settings that allow children to learn, play and grow. These places do not only consist of inside areas, but also includes outdoors (DeBord, et. al, 2003). When children engage in games and connect with their environment, play and learning can become two essential observable outcomes of children's behaviors (Monsur, 2013). If the environment is well-designed, it can encourage children to test their limits and skills with different levels of challenges (DeBord, Hestenes, Moore, Cosco, & McGinnis, 2002).

Especially, outdoor play environments provide children wide open spaces because children can move freely and independently. In this way, children can discover the world around them and get a chance to experience a variety of things at the same time (Burriss & Burriss, 2011; Mayrand & Waters, 2015). They also have a chance to move freely, and perform big movements such as running, jumping, rolling which may not be possible inside the classroom due to the space and safety concerns (Rivkin, 2000).

1.2. Statement of the Problem

With the advancement of technological developments, heavy focus on academics, and safety concerns play culture has been changed. Children usually spend more time with technological devices than spending time outside (Ahiloğlu-Lindberg, 2012). Play and its concepts have been changed for years with the features of time periods and living conditions. For instance, in the past, children were mostly playing with outside like in gardens, streets and proper wide places. Additionally, they were playing with groups not as an individual (Başal, 2007).

According to the recent literature, in the past, parents says they played more active games in outdoors. In recent years, however, children play mostly with computers, tablets, and electronic toys. Today's children prefer to play alone and be inside. (Altınkaynak, Ertürk, Güneş & Tuğrul, 2014). This can be said as a significant difference between play choices in the past and today. In outdoor places, most of children face with the traditional play areas which blocks children's plays, hands-on experiences and creative works with machines, concrete, and steel or closed by fences, traffic and privacy claims (Frost, & Keyburn, 2013). Another reason for declining

outdoor play time is parental concerns regarding the safety issues. Due to the concerns that today's parents have such as traffic issues, getting injured, dangerous strangers, kidnapping, diseases, parents prefer indoor activities for their children (Singer et al., 2009.) In Turkey, lack of open spaces and playgrounds, heavy traffic, and safety concerns are common reasons for the decrease of outdoor play (Başal, 2007; Cevher-Kalburan, 2014).

Compared to today's examples, playgrounds in the past were challenging and encouraging children to interact with natural materials. First playground dates to 1837 in which the effect of Froebel's view on kindergarten was significant. He supported idea of natural environments and the developmental benefits children gain during early experiences and explorations in those environments. Climbing trees, making observation in the nature, building different structures, caring pets and engaging free play activities were all important in his educational philosophy. Over the years, playground settings along with the play behaviors of children have continued to change. With the industrial revolution and World War 2, play materials have changed and safety standards were considered as an important factor. While industrial revolution was changing natural materials with manufactured ones, World War 2 brought fences to the playgrounds. After those changes, standardized/traditional playgrounds were started to be seen. Those playgrounds were characterized with same types of manufactured material and equipment such as swings, slides, see-saws, etc. In 1936, the idea of adventure playgrounds and loose materials gained an importance in the design process, but it still could not affect the overall design approach of all outdoor play areas (Frost, 2012).

The importance of play is widely well known, however; outdoor play and children's play behaviors during outdoor play time takes limited attention in the literature as child's limited outdoor play time. Most of the research in early years focus on indoor classroom environments and not consider the effects of outdoor environments on the behavior of young children (Chakravarthi, 2009). As well as limited attention to outdoor play, there have been big changes in children's outdoor play time and this is emphasized by many researchers.

Children's play behaviors and choices are affected by variety of factors. Today children are not encouraged to play by adults mostly because of the safety concerns. They spend more time indoor than outdoor environments. In addition, play environments are not qualified for more active games so children prefer technological games rather than outdoor play. Unfortunately, outdoor play areas offer children similar activities that are not challenging for children to improve their skills with multiple aspects. On the other hand, outdoor play areas can be a chance to support children's development with so many aspects. These places which support, cognitive, social and physical development of children are crucial. Because of that, outdoor play environment design is important. Design of the outdoor play areas and its effects on children play choices should be determined wisely. With the help of that, which sort of materials and equipment support children's active movement, motor skills, or social play can be determined. Thanks to this, playgrounds would be designed according to the consideration of these priorities. With the help of that, more active lifestyles and meaningful movement for the development of children can be encouraged in all aspects and outdoor play areas.

1.3. Research Questions

The following research questions will be used to guide the study:

1) To what extent the design of preschool outdoor play area influences preschools children's play types?

2) To what extent outdoor play materials and equipment influence preschool children's social and cognitive play types?

1.4. Significance of the Study

Consideration of outdoor playtime and outdoor play environments is an important contributor to children's whole development. Additionally, when considering the historical changes in both the types of equipment and play preferences of children, it is important to investigate the outdoor play areas in terms their role on children's play choices. When determining the problems of the outdoor play areas and their effects on children's play types, we as educators could get a chance to arrange more qualified

play areas for children to take advantages from such places physically, intellectually, and socially. Researches share the same apprehensions which is about what should be taught or how should be taught. On the other hand, what children get received from the physical environment takes little attention (Sanoff, 2009). Therefore, physical environments of children should be investigated, and its design specialties should be considered.

The purpose of the study is to investigate the designs of preschool's outdoor play areas and children's play preferences. Outdoor play is not only support for children's developmental areas, but also provides a chance to develop problem-solving skills, encourage empirical thinking and creativity, support conversation skills and empathy development while make them active during the day. With this study, children's play preferences were investigated by examining the outdoor play areas according to their design characteristics. It was determined how the designs of outdoor play area could shape and direct children's play. Thanks to the findings of the study, how playground designs can be effective for children's play and important points that should be taken into consideration in the design process are emphasized. By this means, outdoor play areas can be designed that offer rich play opportunities without limiting the children and support their development in all aspects.

1.5. Definitions of Terms

In the current study, definition of main terms are given below:

Play is enjoyable and instinctive, it is created and directed by children (Anderson-McNamee & Bailey, 2010). Play is self-replicated and instinctive which humans can combine it with different sort of activities such as art, drama and language. Play also can be defined as being in a different mind condition rather than being in real life which adapting to daily life circumstances (Johnson, Christie, & Wardle, 2005).

Outdoor Play Area consists of natural and/or manufactured materials and equipment set aside, created, or designed for children's play (Frost, 2012).

Parten / Piaget Play Levels has two main parts: Cognitive level and Social level.

Cognitive Level of Play includes four types of play:

Functional play is a repetitive muscle movement with or without objects. It includes movements like running, and jumping, gathering and dumping, manipulating objects or materials, and informal games. *Constructive play* is defined as using objects or materials to make something. For instance, constructing a robot with sand or playdough. *Dramatic play* is making role play or make-believe transformations. Pretending to be a mother, child, or monster can be an example of dramatic play. *Games with rules* includes recognition and acceptance to preestablished game rules and playing according to those rules (Johnson et al., 1999).

Social Level of Play includes three types of play:

Solitary play is a play type in which the child is playing alone with materials and does not have any conservations with others. *Parallel play* is playing with toys or engaging in activities like other children who are close proximity but with no attempt to play with other children. *Group play* is playing with others with or without assigned roles (Johnson et al., 1999).

Design is described as a planning or drawing the look and function of the building, garment, or other objects before it is produced. In the current study, the concept of design was used to indicate location and appearances of the equipment and materials in the outdoor play area.

CHAPTER 2

LITERATURE REVIEW

2.1. Play and Child Development

Play has significant roles in child development, health and learning skills. Basically, its benefits can be separated with three developmental areas: social, cognitive and physical development. First of all, play supports children's social skills by giving to recognize, regulate and tell their feelings, learn empathy, develop self-confidence, express their opinions and respect other. While they are working on these emotions, they also start to learn to regulate themselves. They can express their ideas and share their emotions with others. Additionally, play helps them to be a part of a group through which they can learn sharing and solving problems while working together. It also helps children to learn rules, their roles in the society, and behaviors expected from them (Ahern et al., 2011; Anderson-McNamee & Bailey, 2010; Ginsburg, 2007).

A person's ability of understanding mental stages, emotions, desires and knowledge is defined as theory of mind. This ability is important for social interaction and communication skills so provides successful conversation between people (as cited in Bradford, Jentzsch, and Gomez, 2015). The development of theory of mind is affected by pretend play participation, story book reading experiences and interaction with other people. Theory of mind development can influence children's social skills and school success in coming years (as cited in Astington and Edward, 2010).

Hughes and Dunn (1997), analyzed the relationship between play and theory of mind during the pretend play. 10 boy-boy pairs, 10 girl-girl pairs and 5 girl-boy pairs (50 children in total) children from 3 to 7 years old participated in the study. Children were observed with their pairs in a quiet room which equipped with a cine-camera for 20 minutes. In this room, pairs had a big box of toys and dressing up materials for pretend play. For this study, researchers used pre-test and post-test to determine children's receptive language ability (British Picture Vocabulary Scale) and theory of mind

performance (theory of mind tests). According to the results, there is a significant relationship between theory of mind task performance and both mental talk and pretend play. Pretend play supports children's theory of mind and language abilities.

In addition, Burns and Brainerd (1979), investigated the effects of two types of play on preschoolers' perspective taking performance. 51 children participated in the study and they divided the three groups as constructive play, dramatic play and no play treatment. All the groups took the pre-test and post-test. These tests used for to evaluated children's perceptual, cognitive and affective perspective taking performance. Results showed both groups which gave constructive play and dramatic play session improve children perspective taking performance. This study shows that play supports children's social development.

Beside social skills, cognitive development is another main developmental area supported by play. Children learn to think, remember and solve problems through play. It encourages their creativity and it gives them a chance to test their opinions about the world. For instance, while playing with mud, they are free to give a shape they want. They can manipulate and experiment sand, water and mud, and it encourages their creativity. Additionally, children examine different shapes, textures and dimensions during play (Ahern et al., 2011; Anderson-McNamee & Bailey, 2010). Moreover, they use mathematical concepts and terms such as, numbers, shapes, pattern, etc. These are the competencies preparing children for analytic skills and critical thinking abilities that are necessary for a twenty first century education (Clements & Samara, 2009).

According to Zych, Ortega-Ruiz and Sibaja (2016), play has important role on cognitive development and school success. They observed 38 children with five to six years old and record children's expressions, school adjustment and performance with different activities. It was found that their cognitive development, social skills and performances are more intense and qualified during play activities. In addition to this study, Pesce, Masci, Marchetti, Vazou, Saakslahti and Tomporowski (2016), investigated motor coordination and cognitive development with outdoor play habits of children. 460 children (5-10 years old) participated and their weight status and outdoor play habits evaluated. During the study, children's motor development level,

working memory and attention was measured. Its results showed that physical activity, influence children's cognitive development positively with the help of motor coordination improvement and development of object control skills.

In addition to the benefits of play to the physical development, play have contributed to cognitive development of children. Pepler & Ross (1981), determined the effects of play on convergent and divergent problem-solving abilities. In this study, 64 children were divided two groups as divergent and convergent play groups and then they played with materials such as puzzles, blocks, etc. for 3-10 minutes' sessions. After sessions, children's problem-solving skills were investigated with the help of some problem-solving tasks and questions. According to the results, children who played with divergent play materials has more advanced problem-solving skills. They were more innovative, flexible and creative while answering the questions and solving the problems. The study concluded that play supports cognitive development and it can be more efficient with creating more challenging play opportunities.

Final and most observable developmental area is physical development. Some sort of movements which requires using gross motor skills such as running, climbing and jumping helps to regulate the whole-body system. Additionally, these kinds of movements support the physical growth and development while engaging in a variety of loco-motor, non-locomotor, and manipulative skills (Koçyiğit, Kök, & Tuğluk, 2007). For instance, Fjørtoft (2004), investigated the effects of natural environments on children's play and motor development. Landscape structures encourage children for physical activity and play so children's usage of structures for creating play are examined during the study. Two groups of children were formed: children play at the natural environment and children play at regular school playground as traditional playground. Results shows that children's motor skills develop with outdoor play. Especially, natural environment has significant influence on children's balance and coordination skills.

Play is also necessary for the prevention of an obesity epidemic growing the entire world. According to Centers for Disease Control and Prevention (CDC) statistics, the prevalence of obesity increased among both and youths from 1999 through 2014. In

1999-2000 the percentage of the obesity was 13.9% in youth and it was 17.2% in 2013-2014 (Ogden, Carroll, Fryar, & Flegal, 2015). Consuming high-calorie, low-nutrient foods and beverages, not getting enough physical activity, sedentary activities such as watching television or other screen devices, medication use, and sleep routines are reasons of the obesity. Childhood obesity can cause some important health problems such as high blood pressure, glucose intolerance, diabetes, breathing problems, joint problems, and fatty liver disease (CDC, 2015). Therefore, prevention of the obesity is important for children's health, growth and development. For providing healthy development balanced nutrition should be supported with sufficient daily physical activity and play time.

In early years being physically active can prevent children from obesity so early childhood environments have a high potential to provide physical activity. Early childhood centers offer children age-appropriate physical activities with guidance and children can get into the habit of healthy physical activity in entire life. Their activities should be fun, developmentally appropriate and various; therefore, play can be a key activity for this. Most particularly, outdoor environment can allow free movements and provide fresh air and Vitamin D to children during playtime. Children should spend 60-120 min. in outdoor depending on the weather conditions (American Academy of Pediatrics, American Public Health Association, and National Resource Center for Health and Safety in Child Care and Early Education, 2012).

2.2. Children's Play: Then and Now

The definition of play and understanding of its meaning have been changing throughout the years. Historical events, physical changes in the environmental conditions and changes in the societal structures can be seen as powerful dynamics while interpreting play then and now. For example, play materials changed from natural materials to manufactured products (Ahiloğlu-Lindberg, 2012; Başal, 2007). In the past, play materials were usually natural and easy to find in everywhere such as trees, rocks, pieces of wood, water, sand and mud. Those play materials could be found in the nature easily. On the other hand, today's children mostly play with baby dolls, robots, and computers games that are more manufactured, expensive, and not available

to everyone all the time. These materials may also direct them to play more individual games and make them less creative.

A study which carried out with 30 grandmothers and 20 grandfathers to determine the play's 3 generations of change, determined that participants think play as an entertainment tool. Grandparents say they played outdoor games as hide-and-seek, five-stone, and hopscotch in their own childhood, while their children played ball games and hide-and-seek, and their grandchildren played with computers, phones, or war games. Additionally, they indicate that they played with rocks, sand, water and hand-made toys. On the other hand, they emphasize their children played with manufactured and hand-made toys, but their grandchildren usually play with manufactured toys and games that are virtual (Tuğrul et al., 2014).

According to the phone interviews with 230 mothers about children's pastimes and use of electronic media, children's most preferred free play time activity is watching TV or playing in their rooms alone (Singer et al., 2009). On the contrary, children want to play unsupervised areas such as parks, streets and playgrounds but parents have some concerns about these spaces. These concerns can be exemplified bullying by other children and traffic conditions in the streets (as cited in Lester and Maudsley, 2006). In addition, when 9 years old girl was asked that a wish for anything she says: 'to have more hours in the day, because I don't have time to play enough' (The Play Report, 2015). In the light of these, it can be said that play has become more sedentary and usually occurs inside. Children spend more time with technological devices rather than playing with friends outside

2.3. Attitudes Toward Outdoor Play

2.3.1. Parental Attitudes

Clements (2004), investigated children's outdoor play and compared with previous generation. In this study, participants were 830 mothers and they were interviewed about their outdoor play experiences and their children's outdoor play. Mothers believes that children get chances to become physically-fit with the help of play. Local parks, playgrounds and outdoor play settings provide environment for children to use large muscle and free movements. In addition to that, adults claim that outdoor play

environment provide them to observe children and determine their abilities. Parents can observe children's play and see their capabilities and physical limits such as how they jump, run and which fundamental motor skills they can do. Additionally, they can see their interactions with other children, their emotions and reaction towards others. On the other hand, it seems that children spend less time for outdoor play than their mother's childhood. According to the findings, most important obstacle of outdoor play is increasing usage of technological devices in the home such as television and computer.

Additionally, 72 percent of 830 mothers indicated that their children mostly watch television, films, or movies but only 41 percent of them think they are happy while watching. On the other hand, 58 percent of the mothers stated that their children play outside or at a playground and 54 percent of them think their children happy while playing outside. Mothers mainly sees outdoor play beneficial for physical development and could not recognize the cognitive and social benefits. On the other hand, they have concerns about the lack of available places for outdoor play so they allow children to stay home and watch TV. When it is looked at their concerns in more detail, it is seemed that these concerns about outdoor environments' safety and dangers in outdoor. Adults wants to allow children to get dirty while playing but developing countries have more fear about disease and prevention of children's health (Singer et al., 2009).

Conformably, In the Play Report of IKEA, only 6 percent of 11.000 parents indicated that they do not have concerns about their child. Parents worried about to allow their children playing outside with their friends. They have fears about child abduction, bullying, and road traffic. In addition, 45 percent of them think they do not have time to play with their children and 26 percent of them too stressed about playing with children. On the other side, 73 percent of 3000 children thinks that playing with parents is more fun than watching television. Additionally, half of the parents thinks play should be educational but almost all the children just want to have fun during play (The Play Report, 2015).

Similar results emerged in the researches carried out in Turkey and 88 mothers participated to study. According to the mother's answers to semi-structured interview form, children usually spend most of their time in front of television (n=62) or playing in their room (n=60). They mentioned that they are not satisfied with outdoor playgrounds due to reasons such as safety, disorganization and physical environment characteristics of play areas, and possibility of children get dirty (Erbay & Durmuşoğlu-Saltalı, 2012). Parents want to offer children more opportunities to play outdoor games, but they point out that these opportunities are limited by the lack of adequate qualifications of playgrounds, the lack of green spaces, traffic, and dangerous strangers (Cevher-Kalburan, 2014).

2.3.2. Teacher's Attitudes

Teacher attitudes, as well as parent's attitudes, are also important for providing a supportive and free play environment for children. According to the research which includes ten early childhood teachers and one center director's beliefs, their journal writings and observation reports, teachers believed that supervision is key role and their major responsibility guidance for children's outdoor play. Early childhood educators claim that outdoor areas design is an important component for children's play. It can limit children's play with planning, preparation, and implementation in outdoor environment. According to the teachers, ideal outdoor play environment should have climbing equipment, shade, open space and fewer obstruction. Also, it should provide opportunity to play with sandbox, playhouse, tricycle track and interact with other age groups. Teachers claim that weather conditions, parental concerns, community, space and lack of equipment are main problems for outdoor play. They think there is no need for planning outdoor play and they have little or no training for outdoor play. Early childhood teachers aware of the importance of outdoor play times for children development but lack of knowledge of outdoor play, environmental features and motivation causes limited outdoor experiences (McClintic and Petty, 2015).

In the findings of the research Davies (1997), which was completed by interviews with 8 preschool administrators and observations of children's outdoor games, the teachers

think that children should be free during outdoor games and do not intervene unless it is necessary. They prefer to set the play place, observe and monitor play. Only inappropriate or unsafe children's behaviors are redirected by teachers. They think outdoors provide physical health in terms of releasing physical energy, supporting physical and movement skills. In addition, they indicate outdoors give opportunity to children for interacting with other children, learning cooperative play and developing communication and negotiation skills.

According to the results of a similar research conducted with 25 preschool teachers in Turkey, teachers think that outdoor activities are an activity which is beneficial for child development, necessary and beneficial at early childhood education and irreplaceable. The teachers who participate in the research consider outdoor activities as pleasant, fun, stressful, happier, having a good time, being active and fresh air. Outdoor activities are seen by teachers not as activities but as the reason for the children being taken out in the spring. Teachers have prerequisites such as weather conditions, physical conditions and safety in order to be able to take part in outdoor activities. Because of not having school garden or having small garden, lack of materials or equipment, negative attitudes and worries of the parents, outdoor activities are limited or teachers only prefer to play games with rules. During these games, the teachers actively participate in the games or prefer to be an observer (Alat, Akgümüş & Cavalı, 2012).

In a research which includes 876 early childhood education managers' survey finding about limitations of outdoor play and measures to prevent injuries, climbing is determined as a most prohibited play is seen as climbing. Sledding, balancing, biking, ice skating and rough-and-tumble play are other activities which limited cause of the safety concerns and fear of injuries. Managers think non-standard playground equipment, difficulties to integrate natural elements to play, seasonal and weather conditions limit their outdoor play activities. They also stated that they were away from water areas especially like sea shores and lakes (Hansen Sandseter & Sando, 2016).

2.4. Outdoor Play Environments

The idea of playgrounds started with the simple climbing structures and sandbox aiming to help children to teach themselves about the real world and life in 19th century with the progressive movement in education. Some educators and philosopher such as Froebel and Pestalozzi were supportive of these natural environments because it encourages children to be creative and provide them free space (Frost, 2012). Throughout the years, the size of the playground equipment has changed because of the safety concerns. Industrialization and World War II also affected the playgrounds designs. As a result of that, traditional playground was developed during these years because society started to give more importance to children's safety and wanted to protect them from all kinds of harm. These kinds of standardized playgrounds are mainly formed by manufactured material and equipment such as swings, slides, seesaws, etc. (Clandaniel, 2009; Frost, 2012).

In addition to the traditional playgrounds, the World War II developed another new approach about the playground with loose materials and called as Adventure Playground in Denmark. This approach allowed children to create their own play environments using a variety of loose materials (Clandaniel, 2009). After the idea of adventure playgrounds, with the release of the book entitled 'Last Child in the Woods', the importance of nature was emphasized (Louw, 2008). As a result of this, Natural Playgrounds become wide spread. The aim is to emphasize the interaction with nature and to encourage to become creative in their play. Environmental educators see this new natural playground as a key to reach education with the natural world of play, discovery and formal learning (Clandaniel, 2009; Moore, 2006).

On the contrary, traditional (standardized) playgrounds are more common in the children's environments. This type of playgrounds includes manufactured playground equipment especially 4 S's (swings, slides, see-saws, superstructures and the hard surfaces) (Frost, 2012). The results of a research show that all the schools (17 private and 17 private school in Ankara) in the research have traditional playgrounds which have large, open areas equipped with monkey bars and swings so children's play preferences are limited. Public and private preschool playgrounds do not have

differences in terms of their equipment and materials, safety measures and maintenance. 64.7 percent of public school and 58.8 percent of private school has no water play area. In addition, 82.4 percent of public schools and 76.5 percent of private schools has no housing of pets. None of school have construction area in their playground. Schools more emphasis on safety than the features and roles of playgrounds (Olgan & Kahriman-Öztürk, 2011).

Congruently, there is a study which compares primary school playgrounds in Turkey and Australia. In the findings, it is understood that the most common play area is the basketball and netball courts in Australia (basketball court=284, netball court=233) and Turkey (basketball court=69, netball court=64). The natural play areas in schools were also listed as sandpit, digging patch, bushy areas where children can play, trees for climbing, grassed areas for play, flower garden area, food garden area, pond/water feature, recycling facility, nature trail, bird box/table, wildlife habitats, weather station, wildflower area, composting area. Sandpit is the most common natural play area in both countries (Australia=301, Turkey=35). Additionally, trees for climbing (Australia=55, Turkey=25) and recycling facility (Australia=168, Turkey=25) also compared in the study. Australian primary school playgrounds have more natural elements (Chancellor & Cevher-Kalburan, 2014).

In addition to these, Joe L. Frost mentioned that has seen lots of playground which have bad design features such as excessive heights, hard surfaces under equipment, head entrapment spaces, heavy swings and protruding bolts. In his view, worst playgrounds are poorly designed, fixed, lifeless equipment which have limited natural and portable materials. Also, they are not imaginative and aesthetically appealing (Frost, 2008). The inadequate design of playgrounds is an important issue since the surrounding environment has a lot of impact on children's development. Especially, natural outdoor areas have positive effects on people’s physical and mental health. Additionally, places like forests, woodlands and ponds offer more variety and quality play opportunities (Frost, 2008).

Outdoor areas are places where natural world offers a variety of sensory experiences such as smelling variety of plants and herbs or touching different surfaces and textures.

In an outdoor environment, children and teachers can get together and move with full of motivations (Moore, 1996). In a research for determining children usage of playground equipment, 7 mothers were interviewed, and 40 playgrounds were observed in Japan. While it is observed that children play parallel play more than cooperative play in playgrounds because equipment are not encouraging children for group play. According to the findings children test their skills and limitations at different places in the playground. Outdoor play is not only necessary for physical health and development, but also necessary for supporting social development of children while offering different kinds of interactions with other children (Afsharlahoori, 2007).

Unstructured and structured outdoor activity times have positive effects on children's developments. Well-designed outdoor play areas should consider some important key points: boundaries and fencing, play equipment, providing natural elements, ground modeling, planting, natural features, impact absorbent surfacing, self-built play features, vandalism and general maintenance (Shackell, Butler, Doyle, & Ball, 2008.). With this way, these areas can provide children multiple forms of play, different kinds of physical activities and prevent them from harm. It also gives them to enhance their motor senses, social development learning, giving decisions and make-believe games. Outdoor play areas should offer children to play with creative games, games with natural elements such as sand-water, silent games and social plays (Burris, & Burris, 2011; Ünal, 2009).

Different playground and recess studies show that interventions and different design features of playgrounds have an impact on children's physical activity levels and their play behaviors. Movable and recycling materials intervention for 5 to 12 years old children's (intervention group n=123, control group n=152) school playgrounds increase children's physical activity, physical health, enjoyment of physical activity and enjoyment of intra-personal play activities with 7 weeks short-term intervention (Hyndman, Benson, Ullah & Telford, 2014). In another study's findings which done during recess time of 23 schools (9-11 years old children), even basic changes like providing loose materials, painting court and play-line markings and increased teacher

presence on playground during recess increase children's physical activity (Willenberg et al., 2010).

Furthermore, in a research which investigated the school ground design and children's physical activity levels demonstrates that different areas in the playground guide children to different activities. The data of the research collected with SOPLAY from a school in Australia and Canada. In this study, moderate activities such as exploring the area and the trees, climbing on the rocks, crawling on the sand and the green field, and designing creative games were observed in the green areas while active activities were observed in the children playing in the manufactured play equipment. Green areas provide an alternative for children who looking for more social interaction and do not want to attend competitive play (Dyment, Bell & Lucas, 2009).

Playground design affects play choices as well as the level of physical activity. 2361 observations of children's outdoor play in four different pre-school playgrounds for 30 days show that children prefer different play in each playground. The most observed play activities were functional and self-focused play in all four playgrounds. On the other hand, the Center A which has high socioeconomic level, newly renovated and manufactured play area, constructive play is less visible in the other areas while constructive play more common in Center C and Center B has no manufactured play area. On the contrary, symbolic play in Center A has been observed more than other three centers (Dyment & O'Connell, 2013).

According to Wooley and Lowe (2012), play value increases with physical and environmental characteristics of play areas such as the amount of play equipment, type of fixed play equipment, use of loose materials. In their study 10 play sites examined with a tool which evaluates three dimensions: Play value, Physical characteristics of the site and Environmental characteristics of the site. After evaluation, the highest score on site 6 and all of 5 play types (constructive, functional, fantasy, social, games with rules) were observed in that site. On the other side, in site 5 which has lowest score only functional play was observed.

2.5. Major Characteristics of Playgrounds

Well-designed outdoor play areas increase the level of development of children with wide range of opportunity for play. It allows children to be creative, social and active during the play. For this reason, design of outdoor play areas influences on children's play is important issue which should considered by teachers, school managers and designer so there is an informational guide to young children's outdoor play spaces which called as 7C's. It is depended on a study held in outdoor play spaces at child care settings in Vancouver for five years. This study's aim was to investigate the contribution of the outdoor physical factors to child development, quality play at child cares centers and degree of the factors that exist in the outdoor places. 7C's findings argue that design team should include early childhood educators, parents, and children as well as designers. The Seven Cs offers seven principles which are character, context, connectivity, change, chance, clarity, and challenge which are determined after comparison of 12 outdoor play spaces at child-care centers and review of the literature (Herrington & Lesmeister, 2006). 7C's criteria allow a tool for researcher, designer and teacher to evaluate the playscape which are described below (Herrington, Lesmeister, Nicholls, & Stefiuk, 2010).

1) Character of the playscapes meets the meaning of the feeling that outdoor place provides and design's main intent. Character has four types: modern, organic, modular and re-use.
2) Context includes areas in the playscape, environment of the playscape and their interaction such as thermal delights, space per child ratio, busy town and neighborhood.
3) Connectivity refers the connectivity of the playscapes in terms of physical, visual and cognitive contexts.
4) Change means to provide children changes in the area with variety of differently sized areas and changing materials over time.
5) Chance refers to give chance to children to create and manipulate materials in messy zones, to explore something new and make differences in the playscape.

6) Clarity is offering physical legibility and perceptual imageability in the area like clear entrance and exit.
7) Challenge is appearance of the physical and cognitive difficulties on purpose to test child's limits and discover their abilities.

Bjorgen (2016) investigates children's affordances of different outdoor environments using the 7C to analyze data. Character and context criteria of the environment guide children's activity. For instance, natural environment provides flexibility for movements. On the other hand, fixed playground equipment creates boundaries for movements and causes fixed and boring movements for children. When natural environment is examined with the challenge criteria, challenge is provided for physical exploration and independent movements with the guidance of teacher and administration. In the light of these, play environments afford variety of play opportunities and skills so more attention should be given to play environments.

2.6. Affordance Theory

Environment can guide people to choose different movement and behaviors, so design of the playground affects children's play choices. James Gibson claimed that the person and environment relate to echo niche which is the part of the environment. People occupy and make use of environment around them. This system can explain their way of living in the world. This Eco niche create variety of movement and behavior possibilities for human and animals. In addition, people can manage the eco niche for their preferences and it's called as 'niche construction'. Pathways, objects, furniture, materials and equipment constructed by people for their own sake and Gibson especially interested in this process. He examined the organism movement and activities in their environment and formed a concept as 'affordances' (Lerstrup & Konijnendijk van den Bosch, 2017).

In 1977, James Gibson explained environmental influence as affordance and constituted Affordance Theory. According to Gibson, the affordances of the environment shows what it offers, provides and furnishes for the animal. These options can be good or ill for the animal (as cited in Jones, 2003). Affordances is what people perceive when look at the objects or environment that is not related with their quality

(as cited in Dotov, Nie, and Wit, 2012). Moreover, product can still have affordances even if the user unaware of that. Because of that, designer should consider the affordance of the product and the user (Obilade, 2015). Gibson examined how people perceive physical environment in regard to their action and exploration based upon the importance of interaction between human and affordances. For instance, flat surfaces afford walkability, variety of objects afford carrying, throwing, grasping and containing (Kernan, 2010). Affordance Theory argues that perception of the environment depended on both the perceived and the perceiver. Due to this reason, the affordances should be addressed from both of them (as cited in Kernan, 2010).

With describing and determining the environmental features which foster valuable activities can provide meaningful way of understanding the environment for people. Gibson argues that meanings and spatial world are inseparable. For instance, meaning connects with color, form and texture (as cited in Jones, 2003). According to Heft, designers and city planners can use affordance in the planning process (as cited in Lerstrup & Konijnendijk van den Bosch, 2017). Heft grouped different kinds of activities in regard to their functional properties and affordances. In addition, he described environmental counterparts to expressed activities and this is called as functional taxonomy. It mainly focuses on children's environment and behaviors (as cited in Lerstrup & Konijnendijk van den Bosch, 2017).

Table 2.1.

Preliminary Functional taxonomy of children's outdoor environments

Classes of features with distinctive functional properties	Afforded activities
Flat, relatively smooth surface	Walking, running // cycling, skating
Relatively smooth slope	Coasting down // rolling, sliding, running down // rolling, objects down
Graspable/detached object	Drawing, scratching // throwing // hammering, batting //spearing, skewering, digging, cutting // tearing, crumbling, squashing // building of structures

Attached object	Sitting-on // jumping-on/over/down from
Non-rigid attached object	Swinging-on
Climbable feature	Exercise/mastery // looking out from // passage from one place to another
Aperture	Locomotion from one place to another // looking and listening to adjacent places
Shelter	Microclimate // prospect/refuge // privacy
Moldable material	Construction of objects // pouring // modification of its surface features
Water	Splashing // pouring // floating objects // swimming, diving, boating, fishing // mixing with other materials to modify their consistency

With the help of the Heft's functional taxonomy, children's environmental and children's play and behaviors in environments can be examined in a meaningful manner. Kernan (2010), claims that if people ignore the affordance, the motivation of the moving around and exploration decrease. With this understanding, researchers investigate the children's environments and their actions. Storli and Hagen (2010), explored the children's physical activity with using Heft's functional taxonomy in traditional playground and natural environment. Although results show that there is no significant difference in regard to physical activity level, there is a strong relationship with individual physical activity level from day-to-day and its independent from the environment. Lerstrup and Konijnendijk van den Bosch (2017), observed two groups during their free outdoor playtime in their outdoor play environment. After a group observed in traditional playground and the other one observed in forest, findings analyzed with the help of Heft's functional taxonomy. According to the results, there have been activities which fit with the Heft's affordance of the functional classes of outdoor features. In addition, two additional classes proposed, and these are creatures

and fire. Affordance activities of creatures are looking of, handling and caring for. Also, fire is afforded activities which feeding the fire, looking after and sitting by.

Different researcher used affordance theory to examined physical activities and play. Zamani and Moore (2013), examined cognitive play affordance of two outdoor learning settings which manufactured and natural environments. Manufactured elements formed play environment for one-dimensional cognitive function for children. On the other hand, natural elements provided daily chances to shape, explore and make experiment by children. Affordance of the play environment has a crucial role on child's movements, play and behaviors in that area. Moreover, Kyttä (2002) examined the urban, suburban, small town, and rural environment's affordances by using semi-structured interviews with 8-9 years old children in Finland (n=98) and Belarus (b=143). Finnish rural environment provides amount of affordance with accessible natural environment. In Finland average of the affordance is 33% and children get chance to attend different kinds of activities. On the other hand, average of the affordance is 8%. In addition, water play found as a weakest affordance in this study.

2.7. Summary

Play and outdoor play have significant role for children's all developmental areas and educational life. Parents and teachers also aware of its importance. On the other hand, some technological improvement and historical events affect the way of understanding play and conditions of outdoor play. It is a problem that children have more passive life because of these changes so outdoor play areas are very important role in these conditions. It is a chance to provide children more active life with providing enjoyable time and learning environment.

In the light of the previous information, it can be claimed that the outdoor play areas also influence children's play. Because of this reason, its design and planning process of outdoor places gain more importance. Children can change their play types, interactions and activity level according to provided materials and equipment. Design characteristic of the outdoor play area has significant contribution for their choices.

This literature review of outdoor play and playgrounds provided to form a basic structure to ask, ‘To what extent the design of preschool outdoor play area influences preschools children’s play types?’, and ‘To what extent outdoor play materials and equipment influences preschools children’s social and cognitive play types?’ With the help of observation research method, outdoor play design influences on children play types were investigated.

CHAPTER 3

METHODOLOGY

In this chapter, the design of the study, the sampling, the data collection procedure, the data analysis, the ethical consideration will be discussed.

3.1. The Design of the Study

This qualitative study aims to investigate the preschool outdoor play environments regarding their design and influence on preschool children's play types. Qualitative research methodology provides researcher to gain experience and perspective by providing realistic and holistic analysis of data (Bogdan & Biklen, 1997). In order to investigate deeper and more meaningful effects of pre-school playgrounds on children's play preferences, behavioral mapping method was used while using the Playground's Physical Elements and Indicative Scoring Scale and Parten/Piaget Play Recording Sheet.

3.1.1. Behavioral Mapping

Behavioral mapping method aims to record people's behaviors and movements in a specific area. A behavioral map shows what people do, where they are and how their behaviors locates in the area. With this method, researcher describes the behavior, environment and the relationship between the behavior and design of the environment so can be looked at whether previous assumptions before the design process have been realized (Ng, 2016). According to Cosco, Moore and Islam (2010), behavioral mapping is a method which depends on the concept of behavior setting and affordance. Behavior setting is described with the ecological area where physical environment and behavior has interaction which cannot be interrupted. This setting includes people, physical components and behavior. Behavioral mapping provides to make connections between behaviors with particular locations, physical environmental features, types of users and in progress of time.

There are four uses of behavioral mapping (as cited in Ng, 2016):

1) to describe the distribution of behaviors throughout a particular space
2) to compare two different situations or conditions
3) to identify general patterns in the use of space in a variety of settings
4) to provide quantitative predictions of distribution of behaviors in a facility is constructed or occupied, mainly in architectural programming.

According to Moore and Cosco (2010), behavioral mapping method provides some advantages for behavioral observation, so it is important technique for studies which examines behavioral contexts. First of all, during the people may not be honest with their answers about what they are doing and their activities because of the social desirability. Second important factor is memory of human which cannot be trustful all the time. People can forget what they do or do not in their routine activities. In addition, people may not be aware of their activities and behaviors. This method can be helpful to eliminate these problems with using observation method. For behavioral mapping and behavioral tracking, direct observation is used. Especially, behavioral mapping is an effective method while working with little children. Children can have hard time to express their feelings, thoughts and understand their behaviors. For this reason, behavioral mapping method was chosen for this study to examine children's play types during outdoor play time.

There are two types of mapping: place-centered map and an individual centered map. Place-centered map is used for determining locations of people while engaging variety of activities in a specific setting and time period. On the other hand, individual centered map focus on a person's movements and activities in a setting or settings over time (Ng, 2016). Place-centered map was used for this study to investigate play types in specific play areas during the outdoor play time. During the procedure Behavioral Mapping's five main elements (a base map, behavioral categories, a schedule for observation, a systematic procedure for observation and a system of coding and counting) was followed.

During the observation process non-participant (unobtrusive) or machine observer (video recording-photo taking) can be used so for this study, non-participant

observation method and photo taking were used. The aim of, non-participant observer was having no effect to observed behavior. Besides that, machine observer provided chance to go back to the records and analyze data again. Researcher observed the play and take notes. In addition, photos were taken in the outdoor play areas and play types were recorded with this way because administration did not allow to make video recording.

3.2. Sampling

The target population of the study was private preschools in Ankara, Turkey. Observation is one of the most commonly used data collection methods in qualitative research. However, it is not possible to work with a large sample group both in terms of time, cost and data analysis. Sampling attempted to obtain a holistic picture that will represent all possible diversity, richness, diversity and contradiction as far as possible (Karataş, 2015). For qualitative research sample size is usually selected between 1 to 20 (Fraenkel, Wallen & Hyun, 2015). Due to this reason, six preschool playgrounds in Ankara were chosen with purposive sampling method. In this study, playgrounds should be different from each other in terms of their environmental and structural elements and design components. In purposive sampling method researchers use their judgement to select a sample based on their beliefs and prior information about the research topic. Researcher considers that which sample will provide the needed data (Fraenkel, Wallen & Hyun, 2015). Because of that, purposive sampling was proper for design of the study so 6 preschools in Ankara were chosen according to their outdoor play areas and design characteristics. For instance, some of the playgrounds had natural elements such as sand, trees and while other playgrounds had more structured play equipment and materials. Their design characteristics were different from each other, so preschools were selected according to their outdoor play environment and availability. In addition to this, within the all areas, 102 children of 60-72 months were observed in outdoor play areas during the outdoor play time for determining their play choices. The observation period was lasted approximately one and a half months and completed in September-October. During the observation process, children were playing freely in the area and there was not any structured activity.

3.3. Instrumentation and Data Collection Procedure

3.3.1. Playground's Physical Elements and Environmental Characteristics Indicative Scoring Scale

For this study, two main instruments were used to evaluate play areas and two experts were consulted from City Planning Department. One of them is Playground's Physical Elements and Environmental Characteristics Indicative Scoring Scale (See Appendix A) developed by Wooley and Lowe (2012). Permission to use the instrument was granted. In addition, the instrument's applicability to Turkish context and the study were provided with four expert opinion. Two of the experts were from early childhood and two of them were from city planning department. After expert opinions, 5 items in the scale were revised according to their suggestions. Playground's Physical Elements and Environmental Characteristics Indicative Scoring Scale was used to evaluate the outdoor play areas materials, characteristics and equipment in terms of their features, numbers, and availability. The instrument was also used to evaluate the playgrounds' suitability to guide children's manipulation and experimentation. A score of 0 to 5 was given to playgrounds for each item on this scale. These scores were determined by the number of materials or equipment and whether the field provides the required characteristics or not. '0' was the lowest score, it usually indicates that playground does not have that material, equipment, or feature on the field. '5' was the highest score and means that the playground has the highest number of equipment and material or possesses the feature sought. In the scoring process, researcher went to the preschools one by one, and scored each outdoor play area according to the instrument. During the scoring process, children did not present in the area and photos of the area also were taken solely. Another observer also scored the areas with the same process. After this process scoring of the areas were checked with another researcher from the early childhood education field. At the end of the research, the points of playgrounds and the relationship between play types was investigated. At the end of the study, evaluation of the outdoor play areas were compared.

3.3.2. Parten/Piaget Play Recording Sheet

Second instrument was Parten/Piaget Play Recording Sheet (See Appendix B) to determine children's play types during the outdoor play time (Johnson, Christie & Wardle, 2005). According to Johnson, Christie, and Yawkey (1999), observation is important for understanding children's play behaviors. While watching children's play, children's play activities can be determined in detail. For instance, their preferences about play, toys, materials, equipment and play spaces can be specified. In addition, information of children's interaction, social and cognitive development can be provided. Because of that, observation method was used for this instrument. Observation should be systematic that means observer should know what exactly looking for in children's play, make certain of it shows children's typical play behaviors and make observation over time. Parten/Piaget Play Recording Sheet provide comprehensive perspective about children's play patterns (Johnson, Christie, and Yawkey, 1999). Two experts from early childhood education department were consulted on the applicability of this observation form for the study. This instrument was used with non-participant observation method as a complete observer role. In this observation role, the researcher observed the activities and not participate to the activities. Participants of the study may or may not realize the observer and being observed (Fraenkel, Wallen & Hyun, 2015).

In original, Parten/Piaget Play Recording Sheet has cognitive and social levels of play (see Appedix B). Cognitive level is divided to three as functional, constructive, dramatic and games with rules. On the other hand, social level consists of three plays: solitary, parallel and group. For this study, these levels of play were written three times on the sheet for each observation tour. Besides that, to use this instrument each playground's map was drawn and divided to centers such as Center A, Center B, and Center C. For instance, Center A was the place which had manufactured functional equipment's such as swings, slides, etc. Center B was the place where sand and water play area stay. Lastly Center C was the area which has natural elements like grass, tress or rocks. When the playground had different play areas, it was added to the instrument as well. For instance, loose materials area or wooden house were added as Center D and Center E. After that, each playground was observed during outdoor play

time for approximately 1 hour. According to Johnson, Christie, and Yawkey (1999), 15 seconds observation period is enough to determine which type of play occurs, so each center was observed for 15 seconds with a single observation movement from left to right across centers as clockwise. This observation tour was conducted 3 times. During the observation, the researcher determined what kinds of play types were seen in those play center and put a tick on the instrument. Each preschool playground was observed on 3 different days so that the reliability of the observation was aimed to be increased.

3.3.3. Photo Taking

During the data collection, it was not possible to see and realize all behaviors in action. On the other hand, photos provided the researcher to record the observation of the environment and behaviors of an individual or group. Also, photos were examined later in several times for discussing the data with other researchers and experts. Because of that photos were useful procedure to data analysis and coding. It also provided more relaxed and sufficient time to the researcher for analyzing the data (Fraenkel et al., 2015). Thanks to the photos, more detailed and comprehensive information was obtained (Cohen et al., 2007). In the light of these, after taking the necessary permissions, photos of playgrounds were taken and used for preventing to miss any play behaviors during outdoor play time.

3.3.4. Pilot Study

Before starting the data collecting process, a pilot study was done with three different preschools playgrounds. Piloting provides to test specific instrument and it is an important element for a good study design. With this way, problems that may arise during the application of the scales and aspects that need to be changed on the scales can be predetermined. In addition, piloting is a practical and easy way to implement a scale (Teijlingen et al., 2001). For this reason, pilot study was implemented during summer time thus scales and process were pre-experienced. It took 3 weeks to complete the pilot study. After the pilot study, observation sheet was changed for providing practical and easy implementation. In addition, it was decided to leave the

observations in 10 minutes instead of consecutively in each round so children could be observed when they changed their play.

3.4. Analysis of Data

During the data analysis process, large amounts of data and information are reduced and retrieved. The most commonly used method in qualitative research analysis is called as coding. In this process, researcher gives codes and labels to data thus it is categorized and gain meaning. (Fraenkel, Wallen & Hyun, 2015). At the end of data collection process, researcher used coding method to analyze the data and categorized all data collected with instruments, observation records and photos. In addition, an expert from the early childhood education field examined and coded the data. This was used for determining the similarities and differences in the findings. With this way, trustworthiness of the study was provided. At the end of the study, the researcher compared the preschool playgrounds scores from Playground's Physical Elements and Indicative Scoring Scale with children's play preferences and combined the findings in a meaningful relationship.

3.5. Trustworthiness

In qualitative studies, trustworthiness contains validity, reliability and internal validity. Researchers use different procedure and methods to check their perceptions, appropriateness and meaningfulness of the data and consistency of inferences over time (Fraenkel, Wallen & Hyun, 2015). In this study, one of the instrument was Plyground's Physical Elements and Indicative Scoring Scale which was developed by Wooley and Lowe (2012) and it was used to investigate the research questions. This instrument helped to evaluate the outdoor play areas. For providing trustworthiness, the instrument examined by four experts and revised in the lights of experts' feedbacks.

While using instruments, observer bias is an important issue. Observer unconsciously alter the data to reach certain outcomes, so observer effect can be another threat for trustworthiness (Fraenkel, Wallen & Hyun, 2015). Because of that, in the current study the natural environment was provided for children. Prolonged strategy was used for eliminating those threats. Observer went to the preschools and met with children before the study. It protected them to feel special attention which could change their

behaviors. Additionally, the findings were considered most appropriate and the framing conclusions with this way results were not affected by the researcher's background or predictions. In addition, another researcher came a preschool three times at the same time and observed children. The data collected from the two researchers was compared and agreement was provided for the study with 81,25% reliability coefficient. According to Patton (2002), reliability coefficient should be at least 80%.

Moreover, photos of the playgrounds were taken during the observation process. External audit is another strategy for providing trustworthiness. In this strategy, a researcher outside of the study review and evaluate the report (Fraenkel, Wallen & Hyun, 2015). After data collecting process, another researcher was examined the results and the data and then results was compared. With this way, interpretations and conclusions was evaluated.

For the study, observation day, daily hours, daily weather conditions, socio-economic status, age level of the children and gender considered as variables which could affect the children's play preferences. Because of this reason, these variables' effects on play preferences was controlled in the literature and data collecting process started after all variables bring under control. According to the literature, there is no evidence which shows days, daily hours or daily weather conditions have effect on children's play preferences. With this way, these variables eliminated from the process and not considered. In addition, this study done with six private schools, so SES of the parents are not significantly different from each other. Additionally, age level could be another effect, but participants of the study were 5 years old children. Thanks to this, age level variable was also under controlled. Final consideration for data collection process was gender of the children. Girls and boys could choose different play types and activities because of the gender differences, and this could have impact on the results. On the other hand, gender ratio is not at a level that can affect results. For these reason, the variables that could affect the play preferences were taken under control before the data collection.

3.6. Ethical Consideration

In order to be able to apply thesis study and to provide ethical values, approval of research ethics committee of Middle East Technical University was applied. In the application form, the research procedure was explained in detail and the scale and observation form to be used was added to the application. After the approval of the research ethics committee (see Appendix C), the Ministry of National Education's approval was also applied for permission and has received approval (see Appendix D).

CHAPTER 4

FINDINGS

Outdoor places are important for children's developmental areas such as physical, social and cognitive development. These places give children a chance to be free in their movements and choices, so the design of outdoor play areas is an important aspect to be investigated. With this way, the play areas can be designed in the best ways. The purpose of this study to investigate the effects of materials and equipment on children's play preferences. Therefore, the design of the preschool outdoor play areas and preschool children's play types were examined in this current study.

Six outdoor play areas were investigated in terms of their play area designs and the types of play activities children engaged in during outdoor play time. The data was collected through Playground's Physical Elements and Environmental Characteristics Indicative Scoring Scale and Parten/Piaget Play Recording Sheet. In the following part, the findings of the study will be represented along with the outdoor play area descriptions, summary tables of the areas and the types of play, play area maps and photos. The tables will represent the types and the number of the play activities observed in each day. Additionally, the maps will show the types of play activities shown with dots. It shows functional play, constructive play, dramatic play, games with rules, no play and uncategorized play with determining children's play locations in the play area. Dots were illustrated with different colors for representing different play types clearly. In general, the findings will be evaluated for each early childhood education center and it will be described for each center separately.

4.1. Findings of the Pilot Study

For the pilot study, three preschools' outdoor play areas were investigated and observed. According to the pilot study process and the findings, some adaptations have been made for the main study. In this part, the findings of the pilot study and the adaptations will be explained.

4.1.1. Outdoor Play Area 1

This play area was located very close to the road and it was not surround by other buildings. There was an artificial turf and the floor where the equipment placed on was covered with sand. The play area of the preschool was enclosed by fences which made of stone and metal. Outdoor play equipment was placed in an L-shaped sequence from the left side of the building toward the rear side. Such an arrangement made it impossible for the teacher to observe the whole area at the same time. For this reason, children were not allowed to play on the both side of the building. Additionally, the outdoor play area did not have any sun protection, so different parts of the area were used according to the position of the sun during the day. The area included wooden and plastic play equipment which colored with green, orange, blue, white and pink. There was play equipment looked like three tepees, and those tepees had slide and stairs. Additionally, those tepees had gaps that allow children to get under the equipment and rubber wheels were put under them. Balance board was placed on the rear side of the outdoor area. Besides those, two small trees and two rubber wheels were other elements that can children play and connect in the area. According to Playground's Physical Elements and Environmental Characteristics Indicative Scoring Scale, Outdoor Play Area 1# has 42 points over 80. For the observation process, this area was divided to 5 centers as Center A (wheel and wooden bridge), Center B (modular equipment), Center C (climbing equipment), Center D (balance board) and Center E (artificial turf).

At the beginning of the outdoor play time, all the children (n=7) began to play functional with the traditional play equipment. After the first round of the observation (after five min.), children started to form a dramatic play with their friends. They pretended to become monsters, mothers, and children. They had places and areas to hide from a monster or act like they are a family. For that purpose, they used rubber wheels under the play equipment. In the second day, two children did not want to play at some point and they just lied down on the artificial turf, so it also provided a chance to a proper place to rest.

4.1.2. Outdoor Play Area 2

The area had traditional playground equipment and sandpit around the preschool building. The materials of the equipment consisted of iron and wood. They did not look well-groomed or clean. The day before the first observation, the weather was rainy. Because of that, the equipment became wet and the teacher wanted to dry them with napkins during the outdoor play time. Similar to the previous preschool's design, children could not play with all the equipment at the same time because the outdoor play area did not have any sun protection. They could use only a part of the garden according to the position of the sun so, during the observation period, children used different parts of the area. On the first and third day, children generally used Center A (seesaw, chair swing ride) and Center B (swing). On the second day, they only played in Center C (slide) and Center D (sandpit). This areas' Playground's Physical Elements and Environmental Characteristics Indicative score was 28 over 80.

According to the findings, children mostly played functional, solitary and parallel play. Only in the second observation, two children tried to construct something on the sandpit. They decided to build a wall by combining sand, but they did not have supporting materials. Besides, sand was not wet and there is no water supply in the area, so they could not make the wall stable. Because of those, they had to stop the construction. Furthermore, group play was seen between those two children who tried to make a wall.

4.1.3. Outdoor Play Area 3

The third play area had a different design elements compare to those two mentioned previously. One of the difference was having animals: three chickens, two cocks and a coop. Also, there was a rabbit who was sick and could not move independently, so it was staying in the administrator's office. The other difference was the arrangement of the equipment. The outdoor play area was set in the back garden of the school, so the teacher did not have any concerns about observing the children and they could play with all the equipment. Another difference was three additional materials on the ground: a toy truck, an umbrella and a plastic fish. The final difference was the connection of the play area with nature, especially trees. The back garden connected

to their neighbor's yards, so the branches of some trees pass over the fences of the garden. With a variety of features, its score on the Playground's Physical Elements and Environmental Characteristics Indicative score was 36 points over 80. The area was divided to five centers for observation process: Center A (slide, swing), Center B (second swing and seesaw), Center C (sand area), Center D (moveable materials) and Center E (cook).

According to the findings, functional and solitary plays were commonly observed play types. Moreover, the constructive play was also observed, on the second day of observation. In that day, one of the children went through the sand area and just started to dig. After a while, he realized that sand was getting wet while he was digging it. After that, the other children also started to play with wet sand. That situation created an incredible chance for children to engage in constructive play. Besides, the constructive play is also seen on the third day. That time, there was a cooking pot toy besides the toy truck, and they tried to build something with the help of those materials from sand and rocks.

When all stages are taken into consideration, the beginning part of the data collection process was the most difficult stage. Studying outdoor play in early years is hard to arrange because of the school policies, teachers and parent's views. Preschools did not want to accept observation because they did not have outdoor play time in their education program. Furthermore, some of the preschools changed their minds after they consented to participate to the study. They stated that the weather was bad so they gave a reason to decline the observation. The preschools' daily schedule also changed frequently with different reasons such as parent involvement activity, prolongation of other activities, and field trips. Because of that, observation days and hours could not be arranged in specific days and hours for each school. For the main study, teachers and school principals were often called to confirm the observation dates. For those reasons, observing children while they were playing during the pilot study was hard to plan and arrange.

After the pilot study, the researcher realized the necessity of giving 10 minutes for each observation tour because children generally started to play with the equipment in

functional ways. After every 10 minutes they changed their play and playmates. In addition, observation form was changed after the pilot study. In addition, children were more active during outdoors, so they could change their position. Because of that making 10 minutes observation tours was beneficial for determining each child's play and location. Additionally, uncategorized play types were added for the movements and activities which were not categorized as social or cognitive play. Also, the pilot study provided the preliminary observation about different design features could lead children to engage in different play types.

4.2. Findings of the Main Study

4.2.1. Outdoor Play Area 1

4.2.1.1. Results from the Playground's Physical Elements and Environmental Characteristics Indicative Scoring

To analyze the play area's design, Playground's Physical Elements and Environmental Characteristics Indicative Scoring was used. The outdoor play area 1 (see figure 1.1) had a modular traditional playground equipment made from wood and plastic located in the backyard of the school. The ground was covered with rubber, and the area had an open space for big movements like running, jumping, and galloping. The area's score was 21 points out of 80. In the scale, each area could get maximum 5 points for each item and this area did not grant 5 points for any item. It had only one 4-point for the range of fixed play equipment because it had various fixed materials such as swings, slides, modular equipment, and spring horse. The outdoor play area had also average point (3 point) for having clear physical boundaries and being challenging. That is, the area included fences and wall around the area and the equipment provided different kinds of movements such as swinging, sliding, and jumping. Besides, the play area provided informal oversight which referred to a space to observe children for teachers, and it had accessible features such as basic traditional play equipment for children. Additionally, weaknesses of the area can be listed as being limited for allowing individual and group activities (2 points), providing seating opportunities (1 point), being enticing (2 points), and providing learning opportunities (2 points). According to the scoring, main shortcomings of the area were not having the movable

equipment, vegetation/trees, different landforms, loose materials, natural materials, water, and sand (0 point).

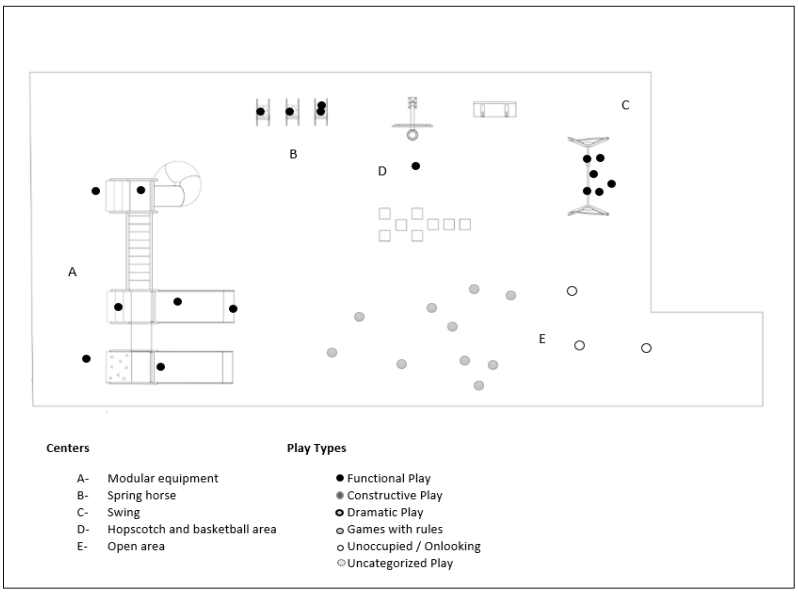
Figure 4.1. Pictures from the outdoor play area 1.

4.2.1.2. Results from the Parten/Piaget Play Recording Sheet

4.2.1.2.1. Behavior Map for the First Day of Observation of the Outdoor Play Area 1

In the first day of the observation, the weather was in 20 degrees (ºC). In addition, the total number of children was 12 (girls=7, boys=5). For the behavioral mapping of children's play activity types, the outdoor play area 1 was divided into five centers: Center A (modular equipment), Center B (spring horse), Center C (swings), Center D (hopscotch area), and Center E (open area). In the first day of the observation, the children (n=12) mostly engaged in functional play such as sliding from the modular equipment and games with rules like soccer (see map 4.1.) In addition, the children

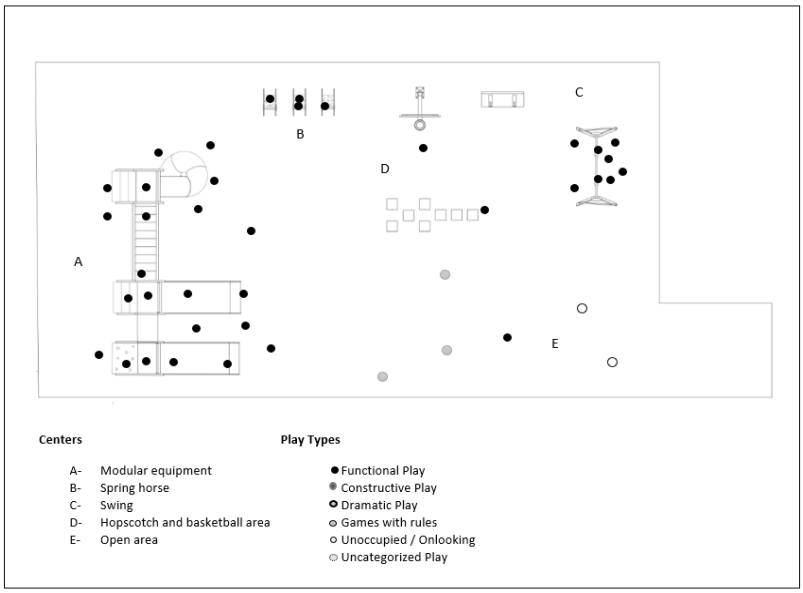
played those functional play mostly on the Center A and Center C. They also used Center E for playing soccer because it was an open area inviting children to run freely. The unoccupied category also was seen in the area at Center E.



Map 4.1. Behavior map for the first day of observation of the outdoor play area1

4.2.1.2.2. Behavior Map for the Second Day of Observation of Outdoor Play Area 1

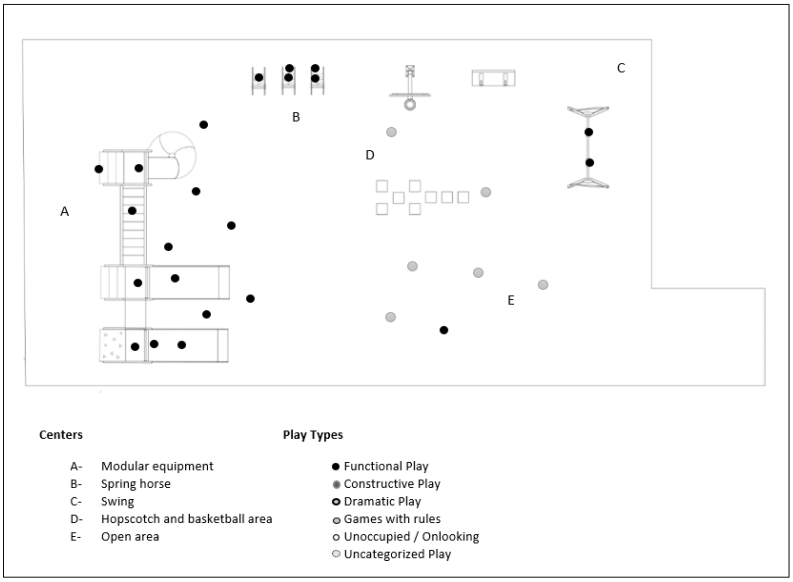
In the second day of the observation the weather was in 17 degrees (ºC). Also, the total number of children was 14 with 7 girls and 7 boys. The results from the second day of observation illustrated the similarities in the types of play activities children (n=14) were engaging during the first day of observation. It was seen that Centers A, B, and C were mostly preferred for functional play activities (see map 4.2). On the other hand, Center E provided an open space for games with rules and active games for running and jumping.



Map 4.2. Behavior map for the second day of observation of the outdoor play area 1

4.2.1.2.3. Behavior Map for the Third Day of Observation of the Outdoor Play Area 1

In the third day of the observation, the weather was in 18 degrees (ºC). Additionally, there were 9 children (girls=6, boys=3). Similar to the previous two observations, the children's (n=9) play preferences were gathered around the Center A, B, C, and E (see map 4.3.) where the children engaged in functional play, games with rules, and activities that are physically involved.



Map 4.3. Behavior map for the third day of observation of the outdoor play area 1

4.2.1.3. Summary of the Results for the Outdoor Play Area 1

According to the results of the observation of the outdoor play area 1, two of the most observed play types were functional and solitary play (see table 4.1 and table 4.2). The functional play had 37.8% and solitary play had 33.8%. In the area, the children usually played with swings, slides, or spring horses with regular way of their own. Because of that, those kinds of play were mostly considered as functional and solitary play. Parallel play was also observed with 6.5% and in which children preferred the same play but they did not interact with each other during the play. For instance, some of the children tried to play numbers on the ground but they did not make any connection with their friends around themselves. In addition to that, game with rules was another play type the children engaged in mostly. The teacher brought a ball to the outside and children decided to play soccer. That situation also created an opportunity to play with other children, so group play was seen with 7.5%. Results also indicated that 2.5 percentage of children did not involve play. In the first and the second day, there were 12 children on the play area and some of the children just looked around and could not decide what to play. The reason for that could be the limited equipment and materials compared with the number of children. Besides, the equipment which they already had

might not attract the attention of children. Peer relations or acceptance issues also can be reason for non-involvement.

Table 4.1.

Number of Play Types Observed at Centers of Outdoor Play Area 1

	Number of Ch[illegible]served *(n)*																
	Center A (Modular Equipment)			Center B (Spring Horse)			C((S			Center D (Hopscotch and Basketball Area)			Center E (Open Area)			**Total Number of Play *(n)***	**Percentage of Play *(%)***
	1st day	2nd day	3rd day	1st day	2nd day	3rd day	1st day	2nd day	3rd day	1st day	2nd day	3rd day	1st day	2nd day	3rd day		
Cognitive Play																	
Functional play	7	22	14	4	4	5	6	8	2	1	2			1		76	37.8
Constructive play																	
Dramatic play																	
Games with rules										5		2	10	3	4	24	11.9
Social Play																	
Solitary play	7	22	14	4	4	5	2	4	2	1	2			1		68	33.8
Parallel play							4	4		5						13	6.5
Group play												2	10	3		15	7.5
No Play																	
Unoccupied / Onlooking / Transition Activities													3	2		5	2.5

Note: Ob. Tour = Observation Tour

Table 4.2.

Number of Play Types Observed at Outdoor Play Area 1

Types of Play	Number of Children Observed *(n)*									Total Number of Play *(n)*	Percentage of Play *(%)*
	First day			Second day			Third day				
	Ob. Tour 1	*Ob. Tour 2*	*Ob. Tour 3*	*Ob. Tour 1*	*Ob.*	*Ob. r 3*	*Ob. Tour 1*	*Ob. Tour 2*	*Ob. Tour 3*		
Cognitive Play											
Functional play	7	3	8	9	14	14	9	7	5	76	37.8
Constructive play											
Dramatic play											
Games with rules	3	9	3					2	4	24	11.9
Social Play											
Solitary play	7	1	6	7	12	14	9	7	5	68	33.8
Parallel play		7	2	2	2					13	6.5
Group play	3	4	3	3				2		15	7.5
No Play											
Unoccupied / Onlooking / Transition Activities	2		1	2						5	2.5

Note: Ob. Tour = Observation Tour

4.2.2. Outdoor Play Area 2

4.2.2.1. Results from the Playground's Physical Elements and Environmental Characteristics Indicative Scoring

In the preschool outdoor play area 2, there were traditional playground equipment made from wood and plastic. One of the equipment was look like a ship and ground of the area is covered with synthetic turf. The outdoor play area closed to the road because the school was located on the street. Its score on the physical and environmental score sheet was 24, and it did not have point higher than 4 for an item. It had only four points to provide spaces for individual, group or team movements. It had two modular equipment: big and small. While big one allowed children to the group and team movements, a small one could enable children to individual activities. The outdoor play area had obvious physical boundaries (3 points), bench for seating (3 points) and moderately enticing (3 points). The most critical weaknesses of the area were similar to the outdoor play area 1. This area also did not have any moveable equipment, different landscape, loose, materials, natural materials, water, and sand (0 point). In addition, the area did not provide children learning opportunities (0 points). It had limited design features such as fixed play equipment (climbing and modular equipment) (2 points), vegetation/tree (1 point), the range of areas (2 points). The outdoor play area 2 was also limited on being stimulating (2 points) and challenging (2 points).

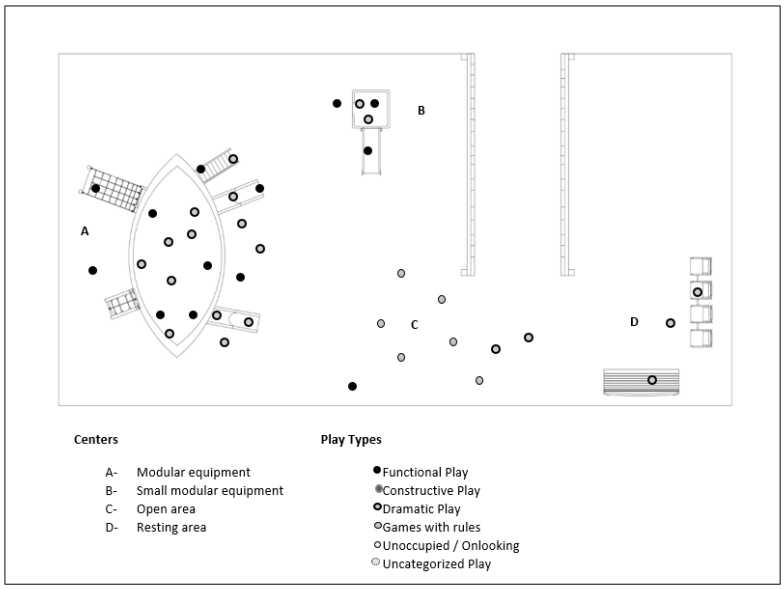
Figure 4.2. Pictures from the outdoor play area 2.

4.2.2.2. Results from the Parten/Piaget Play Recording Sheet

4.2.2.2.1. Behavior Map for the First Day of Observation of the Outdoor Play Area 2

In the first observation day, the temperature was in 18 degrees (ºC) and there were 13 (girls=7, boys=6) children in the area. Outdoor play area 2 was divided to four areas for observation: Center A (modular equipment-ship), Center B (small modular-house), Center C (open area), Center D (resting place with park bench). Second outdoor play area's modular equipment had a ship theme. According to the results, the children (n=13) preferred to play functional and dramatic play in that equipment which placed at Center A (see map 4.4.). Small modular equipment also allowed children to engage

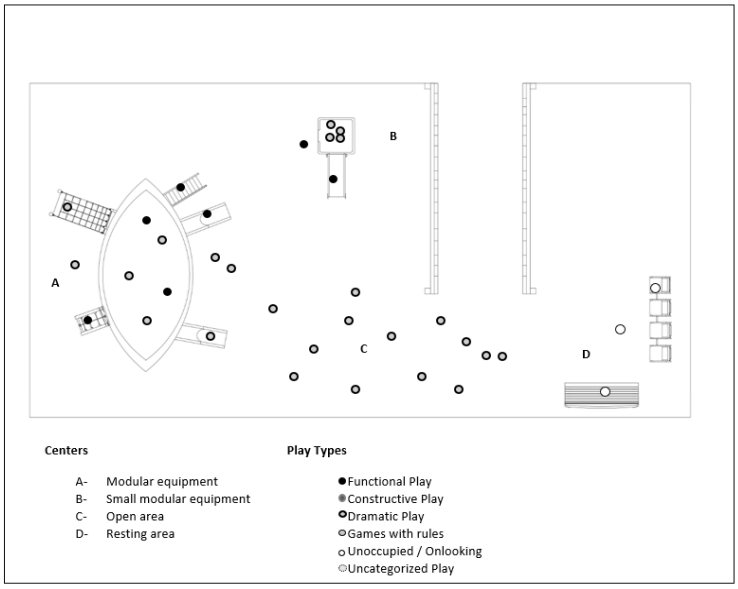
in functional and dramatic play. In addition to those, games with rules were seen as a play type at Center C while dramatic play also seen at the Center D.



Map 4.4. Behavior map for the first day of observation of the outdoor play area 2

4.2.2.2.2. Behavior Map for the Second Day of Observation of the Outdoor Play Area 2

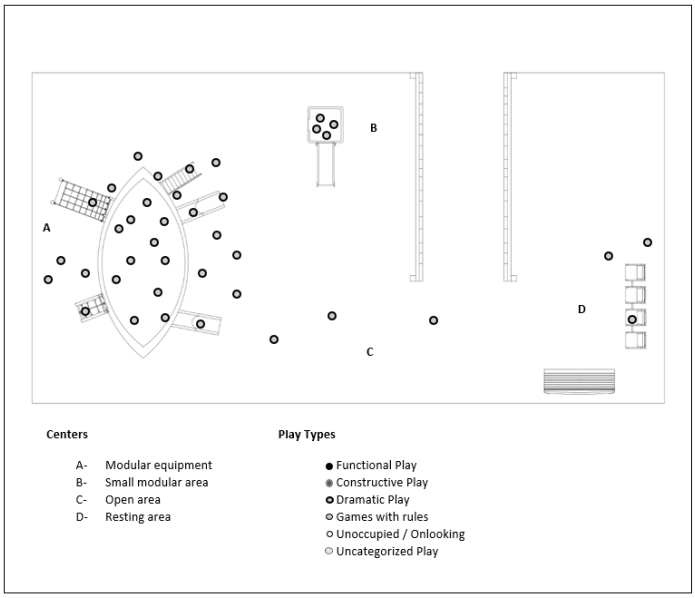
The temperature was in 21 degrees (ºC) in the second day of the second outdoor play area 2. There were 12 children (girls=7, boys=5) and they preferred only two play types: functional play and dramatic play (see map 4.5). In the area, the unoccupied/onlooking category was also determined at Center D which has different kinds of benches.



Map 4.5. Behavior map for the second day of observation of the outdoor play area 2

4.2.2.2.3. Behavior Map for the Third Day of Observation of the Outdoor Play Area 2

In the second day of the second outdoor play area 2, the temperature was in 16 degrees (ºC) and there were 14 children (girls=7, boys=7). The third map shows that children (n=14) only played different kinds of dramatic play (see map 4.6). At the modular equipment which had ship shaped, the children's dramatic play's theme was being a soldier, and act like being in a war. Some of the children tried to catch another group and their road was Center C to Center D. They ran between those centers. Playing house was another dramatic play type which observed at Center B and D.



Map 4.6. Behavior map for the third day of observation of the outdoor play area 2

4.2.2.3. Summary of the Results for the Outdoor Play Area 2

According to the results, dramatic and group play were the dominant play types for this school. One of the point to be emphasized was that 37 of the children were not playing same dramatic play in a group (see table 4.3.). Two group which consist of two girls were playing house in different centers in the area while other children were playing a dramatic play which related to the context of soldier. The other point was that the soldier theme dramatic play (figure 4.3) started with standard playing tag as a game with rules play type. In the third observation tour, children created a scenario for that, and some of them started to act like soldiers, and other ones tried to escape from them. Strikingly, they continued the same dramatic play at the second and third day of the observation. They automatically started to play the same soldier play without thinking as soon as they stepped into the outdoor area. Conformably to the second outdoor play, the design of the equipment could be the main reason for this soldier play. The equipment which had stairs and slides was shaped as sailing ship. Children acted like it was a place for military quarters and the opposite side of the area where they follow and catch other children. Functional play (9%) and solitary play (8%) were another play type seen in this preschool. Children who attended to the dramatic play

functionally used the equipment by their own. Constructive play and parallel play were the play types which did not be preferred by children in this area.

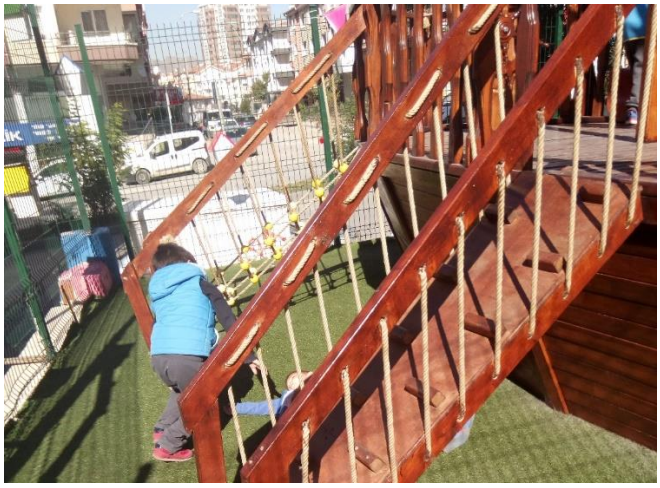


Figure 4.3. This photo shows two children who act as soldiers and tried to catch each other at the back part of the modular equipment.

Table 4.3.

Number of Play Types Observed at Centers of Outdoor Play Area 2

	Number of Children Observed *(n)*													
	Center A (Modular Equipment)			Center B (Small Modul Equipment)			Center C (Open Area)			Center D (Resting place with park benches)			**Total Number of Play *(n)***	**Percentage of Play *(%)***
	1st day	2nd day	3rd day	1st day	2nd day	3ru day	1st day	2nd day	3rd day	1st day	2nd day	3rd day		
Cognitive Play														
Functional play	9	5		3	2		1						20	9
Constructive play														
Dramatic play	13	8	32	2	4	4	2	13		3		3	84	37
Games with rules							6						6	3
Social Play														
Solitary play	9	5		3	2								19	8
Parallel play														
Group play	13	8	32	2	7	4	9	13		3		3	94	41
No Play														
Unoccupied / Onlooking / Transition Activities								1			3		4	2

Note: Ob. Tour = Observation Tour

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Table 4.4.

Number of Play Types Observed at Outdoor Play Area 2

Types of Play	Number of Children Observed *(n)*									Total Number of Play *(n)*	Percentage of Play *(%)*
	First day				Second day		Third day				
	Ob. Tour 1	*Ob. Tour 2*	*Ob. Tour 3*	*Ob. Tour 1*		*Ob. Tour 3*	*Ob. Tour 1*	*Ob. Tour 2*	*Ob. Tour 3*		
Cognitive Play											
Functional play	8	4	1	6	1					20	9
Constructive play											
Dramatic play	2	6	12	6	11	11	13	13	13	84	37
Games with rules	3	3								6	3
Social Play											
Solitary play	7	4	1	6	1					19	8
Parallel play											
Group play	6	9	12	6	11	11	13	13	13	94	41
No Play											
Unoccupied / Onlooking / Transition Activities						1	1	1	1	4	2
Uncatogarized play											

Note: Ob. Tour = Observation Tour

4.2.3. Outdoor Play Area 3

4.2.3.1. Results from the Playground's Physical Elements and Environmental Characteristics Indicative Scoring

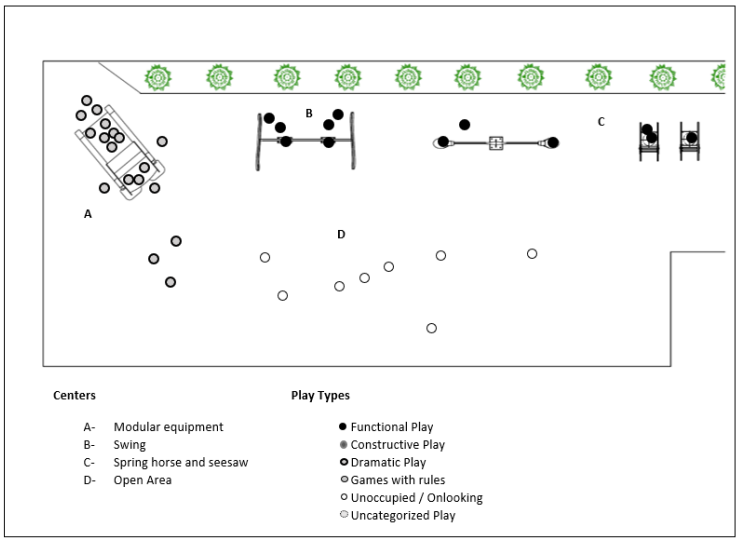
This area had rubber ground and traditional equipment, and the materials which were made from wood, plastic and iron. One of the equipment looked like a big car. Its points for physical and environmental scale is 25 points out of 80. When looked at the items of the scale, it was seen that this area did not have obvious strengths. It had some average points for fixed play equipment, allowing an individual, group or team movements with spaces, physical boundaries, being enticing and stimulating (3 points). This area also did not have any loose materials or water and sand (0 point). On the other hand, it had trees which children could have determinately interaction and provide limited natural materials with this way. There were a lot of weaknesses in this area similar to those in other areas. For instance, providing different kinds of surfacing materials (1 points), being challenging (2 points) and providing learning opportunities (1 point).

Figure 4.4. Pictures from the outdoor play area 3.

4.2.3.2. Results from the Parten/Piaget Play Recording Sheet

4.2.3.2.1. Behavior Map for the First Day of Observation of the Outdoor Play Area 3

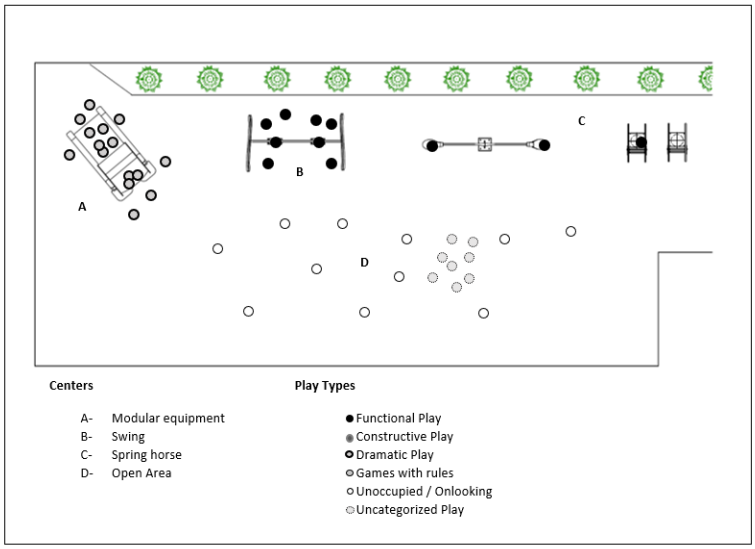
In the first observation day of the outdoor play area 1, the temperature was in 10 degrees(ºC). In addition, there were 13 children in the area (girls=8, boys=5). The outdoor play area 3 was divided to four areas for observation: Center A (modular equipment-car), Center B (swing), Center C (spring horse and seesaw), Center D (open area). First day of the observation, there were 13 children in the area. The outdoor play area had a similarity with the second outdoor play area in regard to having equipment shaped differently (see figure 4.4.). This map also shows dramatic play observed while children play in center A (see map 4.7). Functional play was another play type determined at the centers which have swing, seesaw and spring horses. The first day of the observation, some children walked around and did not play with equipment. This was shown on the map with white dots on the Center D.



Map 4.7. Behavior Map for the First Day of Observation of the Outdoor Play Area 3

4.2.3.2.2. Behavior Map for the Second Day of Observation of the Outdoor Play Area 3

In the second day, the temperature was in 9 degrees (ºC) and there were 15 children with 8 girls and 7 boys. In the map 3.2 of the second outdoor play area, there were uncategorized play dots different from the first day. In that point, a child saw a bug, and they formed a play with it (see figure 4.6). That play revolved from investigating and observing the bug to escaping from the bug when it moves. Other centers of the area had similar play types as results of the first day.

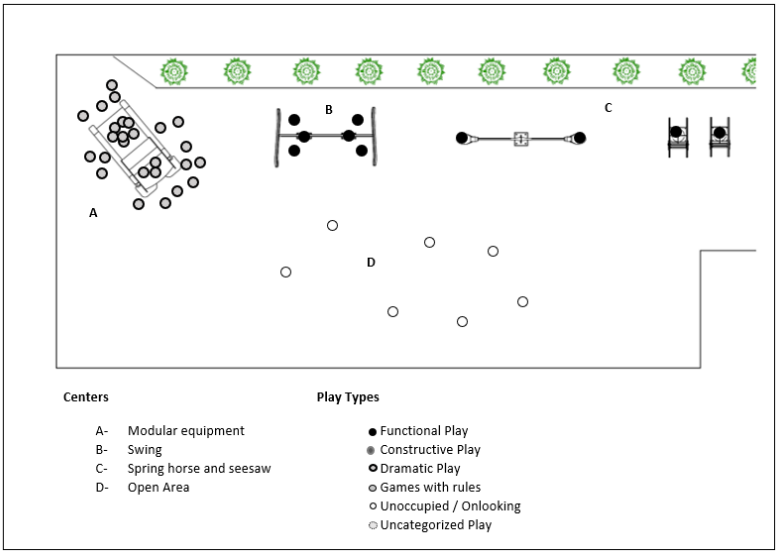


Map 4.8. Behavior Map for the Second Day of Observation of the Outdoor Play Area 3

4.2.3.2.3. Behavior Map for the Third Day of Observation of the Outdoor Play Area 3

In the third day, the temperature was in 11 degrees (ºC) in the outdoor play area 3. Additionally, number of children were 13 (girls=7, boys=6). The third map (see map 4.9.) of the area showed similarity about play types and centers. Functional and dramatic plays were most seen play types in the area. On the third observation day, the children used the truck shaped modular equipment for creating a dramatic play (see

figure 4.5.). The nature of the equipment's shape guided children to play something about cars, journey or taxi driver. In general, the journey continued with becoming passengers and a driver. They got in the car and said to the driver where they want to go. The driver mentioned when they arrived, and passengers get off the car. This process continued to all the observation days.



Map 4.9. Behavior Map for the Third Day of Observation of the Outdoor Play Area 3

4.2.3.3. Summary of the Results for the Outdoor Play Area 3

For outdoor play area 3, children's first play choices were dramatic, and the group plays. This area had an equipment which seems like a red truck. When children went outside, they had three options. One of them was that truck, other one spring horse and last one was swings. Because of this reason, most of the children went directly to the truck and formed dramatic play in this equipment. One child became a driver, and they trip some places with other children regarding the play story. The nature of the truck shaped equipment directed children to dramatic and group play during the outdoor play time. Other determined play types are functional play (16%) and solitary play (15%). Children who prefer these types, seen while playing other equipment by own. Additionally, 13% children did not play during the process (see table 4.5). The first

day three girls said to their teacher ‘we did not find something to play.’ After that, they just sit or walk around. This happened other two days of the observation as well.

The second day of the observation, a boy who did not decide what to play saw a bug on the ground. He started to look at the bug closely and observed it. After a while, his behavior took attention and some of the children came near to him. They started to look the bug together and tried to understand it is alive or not alive (see figure 4.6). After they realized it was alive, they tried to touch the bug and formed a play around it. Whenever it moves, they run away from the bug and then got close to the bug again. It continued until their outdoor play times was over. Before going inside, the boy who started this process find a little stone and put in front of the bug. He said that stone was TV and when we were inside the bug could watch and did not get bored. That unexpected event created a new condition for children and took that chance to play something different and play types did not include this suddenly developed play.

Figure 4.5. Functional play at the equipment and dramatic play at the truck shaped equipment can be seen in the photo.

Figure 4.6. These two photos show the uncategorized plays in the area which are observing the bug and escaping from it when it moves.

Table 4.5.

Number of Play Types Observed at Centers of Outdoor Play Area 3

	Number of Children Observed *(n)*													
	Center A (Modular Equipment)			Center B (Swing)			Center C (Spring Horse and seesaw)			Center D (open area)			**Total Number of Play *(n)***	**Percentage of Play *(%)***
	1st day	2nd day	3rd day	1st day	2nd day	3rd day	1st day	2nd day	3rd day	1st day	2nd day	3rd day		
Cognitive Play														
Functional play				6	8	6	7	3	4				34	16
Constructive play														
Dramatic play	15	15	21							3			54	26
Games with rules														
Social Play														
Solitary play				6	8	4	7	3	2				30	15
Parallel play														
Group play	15	15	21							3			54	26
No Play														
Unoccupied / Onlooking / Transition Activities										8	11	7	26	13
Uncategorized Play											8		8	4

Table 4.6.

Number of Play Types Observed at Outdoor Play Area 3

Types of Play	Number of Children Observed *(n)*									Total Number of Play *(n)*	Percentage of Play *(%)*
	First day			Second day			Third day				
	Ob. Tour 1	*Ob. Tour 2*	*Ob. Tour 3*	*Ob. Tour 1*	*Ob. Tour*	*Ob. Tour 3*	*Ob. Tour 1*	*Ob. Tour 2*	*Ob. Tour 3*		
Cognitive Play											
Functional play	4	5	4	5	3	3	3	4	3	34	16
Constructive play											
Dramatic play	8	6	4	6	5	4	6	8	7	54	26
Games with rules											
Social Play											
Solitary play	4	5	4	5	3	3	3	4	3	30	15
Parallel play											
Group play	8	6	4	6	5	4	6	8	7	54	26
No Play											
Unoccupied / Onlooking / Transition	1	2	5	3	6	2	3	1	3	26	13
Activities											
Uncatogarized play				1	1	6				8	4

Note: Ob. Tour = Observation Tour

4.2.4. Outdoor play area 4

4.2.4.1. Results from the Playground's Physical Elements and Environmental Characteristics Indicative Scoring

In the outdoor play area 4, trees' location allowed children to connect with nature. It also had traditional play equipment and climbing apparatus. The ground of the area made from rubber. Its score on the physical and environmental score sheet was 36 points. The most important strength of this area was the interaction of children with trees in these items. This outdoor play area did not have wide open space, but trees related to the area. They were not seemed separate from the other equipment, and teacher encouraged children for connection with trees. Children touched or climbed to trees and sit close to them. For other items, areas' points mainly average. On the contrary, children could only reach the soil at the foot of the tree and also do not have water for engaging and manipulating soil and water. The area had mostly fixed equipment which are swings, modular equipment and climbing equipment (see figure 4.7). The other features of the area was providing space for individual or group movements, availability of natural materials, obvious physical boundaries, being enticing, stimulating and giving a challenge for children (3 points). On the other hand, children had limited opportunities for playing with moveable and loose materials (car wheel) and playing on different surfacing materials (1 point). In addition, this area was limited to provide different sizes and types of spaces, landform, seating (wooden bench) and learning opportunities (2 points).

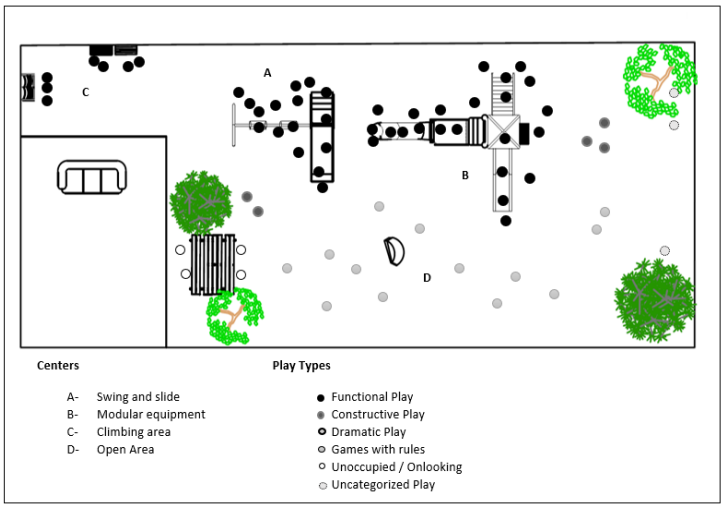
Figure 4.7. Pictures from the outdoor play area 4.

4.2.4.2. Results from the Parten/Piaget Play Recording Sheet

4.2.4.2.1 Behavior Map for the First Day of Observation of the Outdoor Play Area 4

In the first day of the observation, the temperature was 12 degrees and there were 23 children in the area (girls=10, boys=13). The area was divided to four centers as: Center A (swing and slide), Center B (modular equipment), Center C (climbing equipment), Center D (open area). It was seen from the map (see map 4.10), functional play and games with rules have a higher intensity than constructive and uncategorized play. Constructive play formed with pine tree leaf and small rocks at the bottom of the trees. Moreover, the unoccupied category and the uncategorized play were determined as a result of trees. This preschool prepared children trips to different playgrounds. They had a policy and agreement with the parents about the importance of the outdoor play. For these reasons, teachers have tried to intervene at a minimum level in

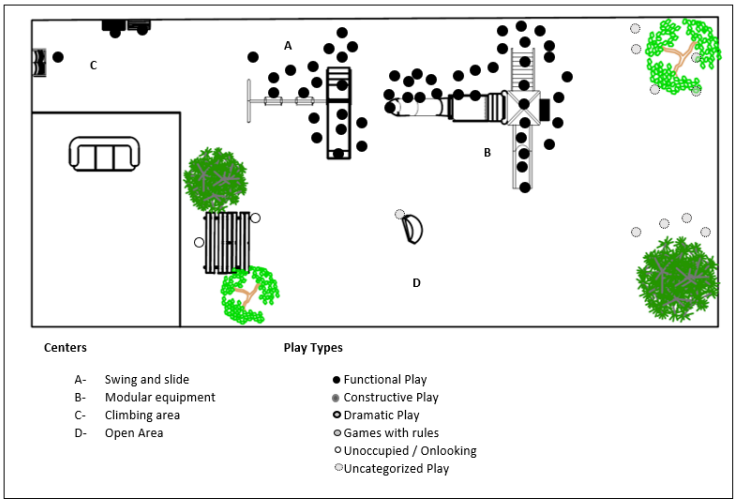
children's play and allow to risky play. Therefore, uncategorized play dots showed children's tree climbing practices which can be considered as risk for some parents and teachers.



Map 4.10. Behavior map for the first day of observation of the outdoor play area 4

4.2.4.2.2. Behavior Map for the Second Day of Observation of the Outdoor Play Area 4

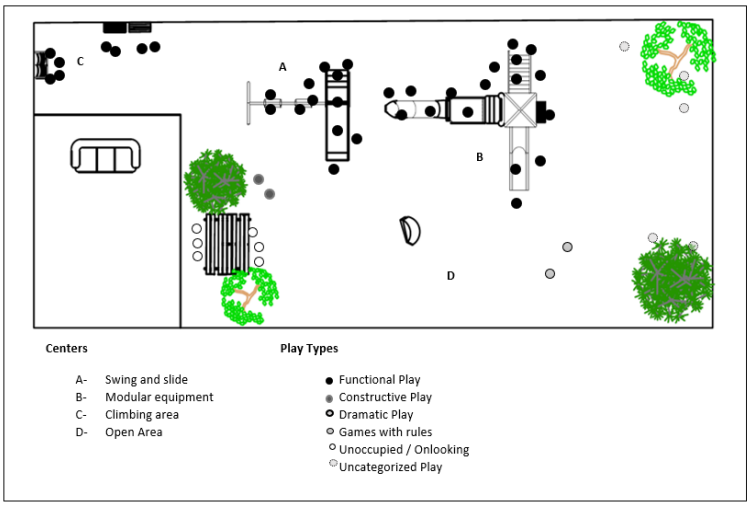
In the second day, the temperature was in 18 degrees(ºC). Additionally, there were 22 children in the area (girls=10, boys=12). The points on the second day's map (see map 4.11) again showed that functional play was very much preferred at three centers. Like the first map, unoccupied category dots and uncategorized play dots had taken place on the map. On the other hand, there was a different play at Center D which had a moveable equipment made from rubber tire. A child tried to drag the tire on the ground and play with it alone and this movement created a play which could not be put under the play types.



Map 4.11. Behavior map for the second day of observation of the outdoor play area 4

4.2.4.2.3 Behavior Map for the Third Day of Observation of the Outdoor Play Area 4

In the third observation day, the temperature was in 13 degrees (ºC). In addition, the number of children were 16 (girls=9, boys=1). The third day of the observation, the children (n=16) preferred the same kinds of play such as functional play, constructive play, and uncategorized play (see map 4.12). Games with rules seen for the first time with hide and seek play in this area. It was shown that the children used Center D for this play.



Map 4.12. Behavior map for the third day of observation of the outdoor play area 4

4.2.4.3. *Summary of the Results for the Outdoor Play Area 4*

In the first day, there was a girl who tried to climb a tree. During the second tour and third tour she did the same thing. In the second observation day all the uncategorized play was also climbing trees. It was fascinating to see that all of them was girls who tried to climb trees. The third day there were two types of uncategorized play was seen (see figure 4.9). One of them was again climbing a tree. The other uncategorized play was that one boy pushed the car wheel material on the ground, but he did not pretend like driving a car. He was playing silently (see figure 4.7).

It seemed that one of the most observed play types in the outdoor play area 4 was the functional play with 40.5% and the other one was solitary with the same percentage. While 4% percent of the children preferred to play games with rules such as hide seek, the 4.6% percent played as a group, and the 1.1% of them favored parallel play. The fourth outdoor play area was an area where 1.7% percent of constructive play could be seen thanks to the natural materials founded on the ground like pine tree leaves and rocks. Play was not observed with a total of 1.7 percent and the children just sit or looked to their around (see table 4.8).

In this area, the uncategorized play also was seen at 5.2 percent, and this uncategorized play was climbing trees. Teacher climbed up a tree and collected quince for children. She also allowed children to try climbing the trees and this risky play could not be placed under the other play types.

Figure 4.8. Photos were taken when the teacher climb the tree and collected quince for children. Children waited under tree for fruits and their teacher.

Figure 4.9. Two photos show girls while they were trying to climb tree.

Figure 4.10. In these two photos, children were collecting natural elements and playing constructive play.

Table 4.7.

Number of Play Types Observed at Centers of Outdoor Play Area 4

	Number of Children Observed *(n)*												**Total Number of Play *(n)***	**Percentage of Play *(%)***
	Center A (swing)			Center B (modular equipment)			Center C (climbing equipment)			Center D (open area)				
	1st day	2nd day	3rd day	1st day	2nd day	3rd day	1st day	2nd day	3rd day	1st day	2nd day	3rd day		
Cognitive Play														
Functional play	16	20	12	23	33	17	7	3	8				139	40
Constructive play										5		2	7	2
Dramatic play														
Games with rules										12		2	14	4
Social Play														
Solitary play	16	20	12	23	33	17	7	3	8	1			139	40.5
Parallel play										4			4	1
Group play										12		4	16	5
No Play														
Unoccupied / Onlooking / Transition Activities										4	2	6	6	3
Uncategorized Play										3	10	5	18	5

Note: Ob. Tour = Observation Tour

Table 4.8.

Number of Play Types Observed at Outdoor Play Area 4

Types of Play	**Number of Children Observed *(n)***									**Total Number of Play *(n)***	**Percentage of Play *(%)***
	First day			**Second day**			**Third day**				
	Ob. Tour 1	***Ob. Tour 2***	***Ob. Tour 3***	***Ob. Tour 1***	***Ob. Tour 2***	***Ob. Tour 3***	***Ob. Tour 1***	***Ob. Tour 2***	***Ob. Tour 3***		
Cognitive Play											
Functional play	22	14	10	21	17	18	15	13	9	139	40
Constructive play		5							2	7	2
Dramatic play											
Games with rules			12						2	14	4
Social Play											
Solitary play	22	14	10	21	17	18	15	13	9	140	40
Parallel play		4								4	1
Group play			12						4	16	5
No Play											
Unoccupied / Onlooking / Transition Activities		4						2		6	3
Uncatogarized play	1	1	1	1	5	4	1	1	3	18	5

Note: Ob. Tour = Observation Tour

4.2.5. Outdoor play area 5

4.2.5.1. Results from the Playground's Physical Elements and Environmental Characteristics Indicative Soring

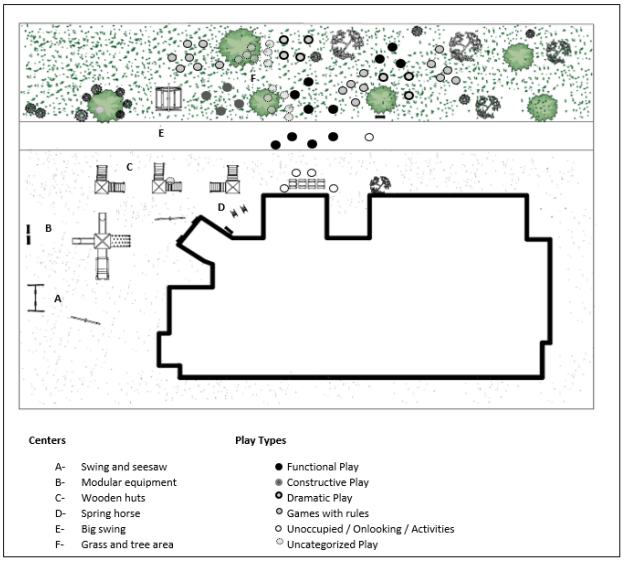
The fifth outdoor play area had traditional equipment, and materials which were plastic, wood and iron. When compared with the other four outdoor play areas, the outdoor play area 5 seemed greener and included more natural elements such as trees, rocks, soil (see figure 4.11). The floor of the part where the equipment was located consists of soil. The other parts of the area had trees and grass. Its physical and environmental score was 41 points out of 80, and it had three 5 points from the range of fixed materials, seating opportunities (wooden benches, small-hut-looking equipment) and being challenging. The area provided opportunities to children for making all of the challenging movements such as swinging, sliding, balancing, rocking and climbing. This area was moderate in terms of some features of physical elements and characteristics. For instance, its main weakness was on moveable materials. They had different moveable materials like balancing beams, hula-hoops, etc. but their usage of these materials during play was depended on the teacher. When the teacher takes those kinds of materials to outside, children can get a chance to play. The other feature was in the area; children could play with some natural elements like rock, soil, bark, leaves, and sticks. The area was moderately enticing and stimulating, and it had physical boundaries and vegetation/trees. Non-variable landform and lack of loose materials were essential weaknesses of the area. Another important thing was the area had sand and grass surfaces, but they did not have water. When looked at the other items, it had limited space for individual or group play, and also it did not thoroughly guide to learning opportunities.

Figure 4.11. Pictures from the outdoor play area 5.

4.2.5.2. Results from the Parten/Piaget Play Recording Sheet

4.2.5.2.1. Behavior Map for the First Day of Observation of the Outdoor Play Area 5

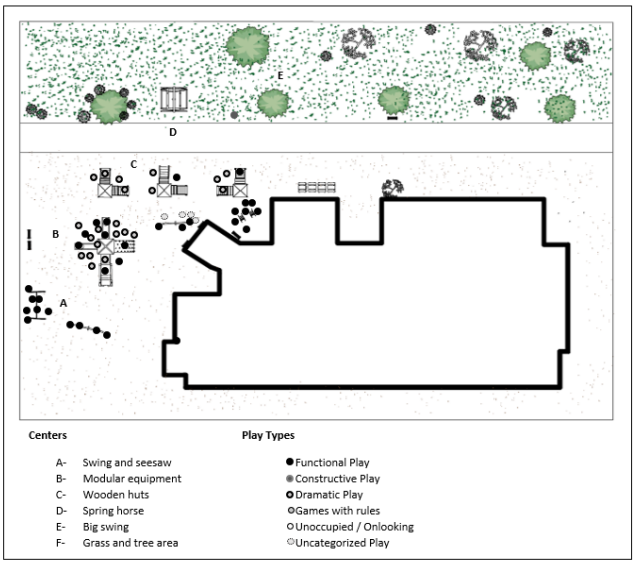
In the first day observation, the outdoor play area 5's temperature was in 19 degrees (ºC). In the area, there were 20 children (girls=8, boys=12). The outdoor play area 5 was divided to seven centers such as: Center A (swings and seesaw), Center B (modular equipment), Center C (wooden huts), Center D (spring horse) Center E (big swing) and Center F (grass and tree area). The first day of the observation, the teacher took different play materials to the outdoor. There were hula-hoops, river stones, and ropes, so the children (n=20) played different kinds of plays many at Center F (see map 4.13). It was determined that children haven't played at other centers with traditional playground except one child and one group. The group made an activity prepared by the teacher at benches.



Map 4.13. Behavior map for the first day of observation of the outdoor play area 5

4.2.5.2.2. Behavior Map for the Second Day of Observation of the Outdoor Play Area 5

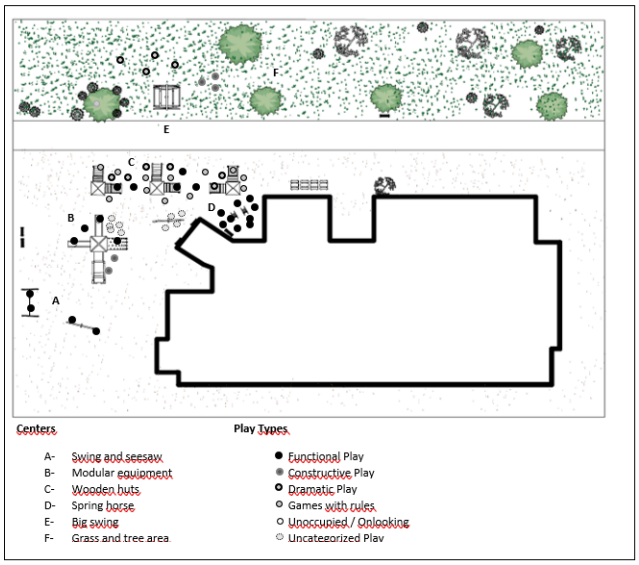
In the second observation day the temperature was in 18 degrees (ºC) and there were 20 children (girls=8, boys=12). When the second-day map examined, it was seen that the children's (n=20) play was not dense on the grass and tree area this time because materials did not take to outdoors. As seen in the map 4.14., the functional play was determined four centers of the area: A, B, C, and D. The observed dramatic play was contained to escape from police and capturing subjects. The children played this game wooden hut area and used these places to hide or as an obstacle to escape. The uncategorized play which was seen at a seesaw started with a child's experiment to see how it crashed if pine cone is put under the seesaw. After a while, other children attended to this activity, and they create a dramatic play related to keeping and protecting these valuable remains.



Map 4.14. Behavior map for the first day of observation of the outdoor play area 5

4.2.5.2.3. Behavior Map for the Third Day of Observation of the Outdoor Play Area 5

In the third observation day the temperature was in 19 degrees (ºC). In addition, number of children were 20 (girls=12, boys=12). Dots of the third-day showed similarity with the second day. Functional play and dramatic play were located at same center with same play themes. The uncategorized play is also similar because this time the same child started to try the same process with tree branches. On the other hand, the children who played the constructive type of play around the Center B used sand, leaves, and tree fragments like materials (see map 4.15).



Map 4.15. Behavior map for the third day of observation of the outdoor play area 5

4.2.5.3. *Summary of the Results for the Outdoor Play Area 5*

The table with the fifth outdoor play area's results showed children emerged different types of play. When we look at the proportions, it is seen that the most preferred ones are group play (23%), functional play (20%), solitary play (18%) and dramatic play (10.6%) (see table 6.1). The dramatic play in the area was about police and the capture of the criminals. The hut-shaped equipment in the area allowed to determine places for the hiding or the places where the criminals would be settled. Similar to the third area, the children immediately continued their police-criminal themed play in the second and third observation day (see figure 4.14).

On the other hand, the uncategorized play had 8.4 percent in this area. For the first observation day, those were climbing trees (n=3), throwing a ball to hula-hoops where attached with the tree (n=10) and rough and tumble play (n=2). Besides, the teacher arranged an activity (n=4) for children with hula-hoops (see figure 4.12). Hula-hoops were placed on the ground in a circle-like shape by teacher and children tried to jump into the hula-hoops. Thanks to the ball, football and dodgeball were also seen as games with rules.

For other days of the observation, they did not use additional materials as balls, balancing beans and hula-hoops. In this case, the number of functional and dramatic play were increased while the number of games with rules and uncategorized play seen were decreasing. For the uncategorized play that seen in the other two days, children used natural materials. One boy tried to break or crush the branches and cones he found on the field using seesaw (see figure 5.3) In some point, his friends attended his exploratory play, and they developed other play. They thought that the pieces of the branches and cones are precious. They collected them and tried to hide them in different places in the area like benches or under the slides. After a while, some of the children decided to get pieces where they stored and other ones protect them. With this way, the boy's exploratory play and others dramatic play combined. Also, it was seen that the constructive play ratio of this area is 3 and this play was also formed with natural materials like leaves, branches, cones, and sand.

Figure 4.12. Photos were taken first observation day of the outdoor play area 4 while they were playing different materials.

Figure 4.13. These tree photos show the uncategorized play which started by one boy and includes crushing pine cone under the seesaw and after that protecting them.

Figure 4.14. Photos are given above shows dramatic play, constructive play and functional play of the children at the different centers in the area.

Table 4.9.

Number of Play Types Observed at Centers of Outdoor Play Area 5

	Number of Children Observed *(n)*																		**Total Number of Play *(n)***	**Percentage of Play *(%)***
	Center A (swing and seesaw)			Center B (modular equipment)			Center C (wooden huts)			Center D (spring horse)			Center E (big swing)			Center F (grass and tree area)				
	1st day	2nd day	3rd day	1st day	2nd day	3rd day	1st day	2nd day	3rd day	1st day	2nd day	3rd day	1st day	2nd day	3rd day	1st day	2nd day	3rd day		
Cognitive Play																				
Functional play		12	4		8	4		2	5		11	9				11			66	20
Constructive play						2										4	1	3	10	3
Dramatic play					10			9	6							7		4	36	11
Games with rules									13							18			31	10
Social Play																				
Solitary play		12	4		6	6		2	5		6	5				8	1	2	57	18
Parallel play					2						5					4			11	3
Group play					10			9	20			4				28		4	75	23
No Play																				
Unoccupied / Onlooking / Transition Activities																1	2	3	6	2
Uncategorized Play																4			4	1
		4	4			5										15			28	9

Table 4.10.

Number of Play Types Observed at Outdoor Play Area 5

Types of Play	Number of Children Observed *(n)*									Total Number of Play *(n)*	Percentage of Play *(%)*
	First day					Third day					
	Ob. Tour 1	*Ob. Tour 2*	*Ob. Tour 3*	*Ob. Tour 1*		*Ob. Tour 3*	*Ob. Tour 1*	*Ob. Tour 2*	*Ob. Tour 3*		
Cognitive Play											
Functional play	5	5	1	9	12	12	11	7	4	66	20
Constructive play		4				1		2	3	10	3
Dramatic play	4		3	9	6	4		6	4	36	11
Games with rules	3	5	10				6		7	31	10
Social Play											
Solitary play	3	4	1	9	5	13	11	7	4	57	18
Parallel play	2	2			7					11	3
Group play	7	8	13	9	6	4	6	8	14	75	23
No Play											
Unoccupied/ Onlooking / Transition		1		2			2		1	6	2
Activities			4							4	1
Uncatogarized play	8	5	2		1	3	1	7	1	28	9

Note: Ob. Tour = Observation Tour

4.2.6. Outdoor Play Area 6

4.2.6.1. Results from the Playground's Physical Elements and Environmental Characteristics Indicative Soring

The last preschools' outdoor play area had some similar features with the fifth one in some points such as having grassy ground, trees, and traditional equipment. Unlike the other areas, the equipment was located in the preschool was the floor is made of stone. For protection from the hazards, cushions were placed on the bottom of the climbing equipment. It had the highest physical and environmental score with 48 points among the other samples of the study. One of the main difference was in this preschool is that the grass area has a different curvature like the hill, so it has different and challenging landform for children. Additionally, this area had a hut for materials like plastic blocks, kitchen utensil toys, and cars. This area had fixed play equipment such as swings, climbing apparatus, balancing board, slide, and seesaw. It had the variety of spaces for individual, group or team activities (4 points). For example, a child could play behind the bushes while the others play with a large group on the grass area. At the same time, some other children could play with a ball in the basketball court. With this way, the area could stimulate children by creating a range of experiences, containing natural elements and allowing for movement. It was also challenging and provide learning opportunities.

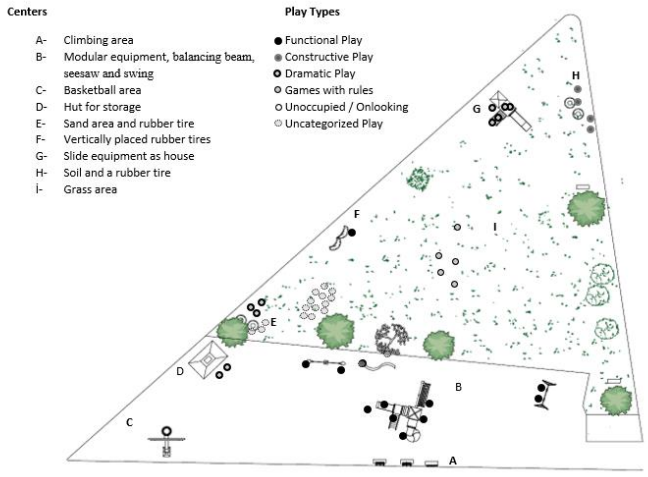
This scale was also showed that this outdoor play area has some average scores for some of the items like a variety of vegetation/tree, different landform, natural materials, obvious physical boundaries, range of surfacing and being enticing (3 points). Like the all other outdoor play areas, the sixth one also did not have loose materials and water. This situation was one of the main weaknesses of the area. In addition, the area was limited to having the moveable equipment (1 points) and seating opportunities (2 point).

Figure 4.15. Pictures from the outdoor play area 6.

4.2.6.2. Results from the Parten/Piaget Play Recording Sheet

4.2.6.2.1. Behavior Map for the First Day of Observation of the Outdoor Play Area 6

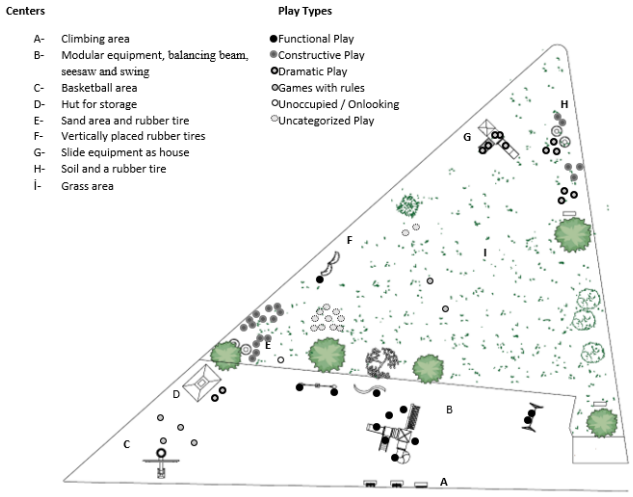
In the first day of observation, the temperature was in 15 degrees (ºC). Additionally, there were 16 children with 6 girls and 10 boys. The outdoor play area 6 had nine centers such as: Center A (climbing area), Center B (modular equipment, balancing beam, seesaw and swing), Center C (basketball area), Center D (hut for storage), Center E (sand area and rubber tires) and Center F (vertically placed rubber tires), Center G (slide equipment as house), Center H (soil and a rubber tire) and Center I (grass area). Last outdoor play area showed some different characteristics on the maps. As seen from the map 4.16, play types and distribution of those types within the area had a more homogenous appearance. While the functional play was seen at the equipment, constructive play was seen at the centers which have natural elements such as soil and leaves. The uncategorized play which was seen at the Center I, shows a child created a play. They had a plastic box, and it could be used for different plays. The children (n=4) started to use this box to collect leaves in it but after a while leaves replace with children. They tried to carry a child with this box. Another uncategorized play which seen at the Center E was trying to stand on the rubber tire with balance. At the same time, some of the children were playing house in the same area. Rubber tires are also materials which they do not have one usage so that children could use it in different ways. Other dramatic play was determined at the Center G. In that center, there was a slide which looked like a house. The outside view of the equipment gave house environment to children. This situation might guide children to choose dramatic play in this part of the area.



Map 4.16. Behavior map for the first day of observation of the outdoor play area 6

4.2.6.2.2. Behavior Map for the Second Day of Observation of the Outdoor Play Area 6

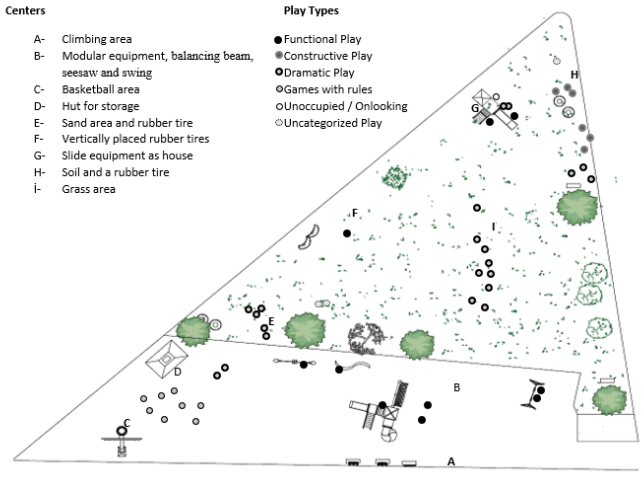
In the second day of the observation, the temperature was in 18 degrees (ºC). Additionally, there were 20 children (girls=10 and boys=10) in the area. The children continued to their same uncategorized, dramatic and functional play at the same centers (see map 4.17). On the other hand, children were playing football at the Center C and ball went to out of the fence. That event created a chance to solve a problem with play materials in the hut. Children (n=8) tried to get the ball with constructing stairs with the blocks at Center E (see figure 6.6). They thought that they could go upstairs, pass fence and take the ball and constructive play formed wit this way. This plan could not accomplish because a child from the outside threw the ball inside of the area.



Map 4.17. Behavior map for the second day of observation of the outdoor play area 6

4.2.6.2.3. Behavior Map for the Third Day of Observation of the Outdoor Play Area

In the third day, the temperature was in 17 degrees (ºC) and there were 18 children (girls=9 and boys=9). The last map (see map 6.3) showed mainly same play preferences at same centers. Unlike the other two days, it is demonstrated dramatic play at Center I. This center gave children to the free area to make big movements and children used this area for running, crawling or jumping. In the third day, they (n=6) acted like a car driver and go around the field and created a dramatic play. Furthermore, another different play determined at the Center H. In that center; there was a child who was observing ants as well as children who prefer constructive play. Conspicuous point of the area is any child used climbing area which named as Center A. There were children who used modular equipment's climbing part, but they did not go to Center A. This center closes to the wall of the building and does not draw attention in the area so that children might not to prefer it.



Map 4.18. Behavior map for the third day of observation of the outdoor play area 6

4.2.6.3. *Summary of the Results for the Outdoor Play Area 6*

The sixth area was another area seen different types of play in the results table with similar percentages. Functional, constructive, dramatic, solitary and uncategorized play's ratios were close to each other. In this outdoor play area, group play had a higher percentage because children mostly preferred to cooperate with their friends. They formed and played constructive, dramatic, games with rules and uncategorized play together (see table 4.11).

In this area, it was discovered that the constructive play appeared with additional (kitchen utensils toys, blocks, and trucks vs.) and natural materials (leaves, sand, tree branches, vs). For instance, on the second day of the observation children were playing soccer threw the ball out of metal hides. After that five children tried to find a way to get the ball from there and they decided to build stairs with natural materials and blocks (see figure 4.16). After a while, one of the kid from higher grade level threw the ball to inside, and they stopped construction.

Children played and formed some interesting play during the observation so uncategorized play has one of the higher percentage with 11 in this area. Notably, they tried to carry a child in the plastic box, and it is seen all three days (see figure 4.18).

Besides, they collected leaves in the box, jumped like a rabbit, run, crawled or walked differently on the ground and climbed the basketball hoop. All of these plays which they create could not put under the play types headings.

Table 4.11.
Number of Play Types Observed at Centers of Outdoor Play Area 6

	Number of Children Observed *(n)*																											**Total Number of Play *(n)***	**Percentage of Play *(%)***
	Center A (Climbing area)			Center B (modular equipment, balancing beam, seesaw and swing)			Center C (basketball area)			Center D (hut for storage)			Center E (sand area and rubber tires)			Center F (vertically placed rubber tires)			Center G (slide equipment as house)			Center H (soil and rubber tire)			Center I (grass area)				
	1st day	2nd day	3rd day	1st day	2nd day	3rd day	1st day	2nd day	3rd day	1st day	2nd day	3rd day	1st day	2nd day	3rd day	1st day	2nd day	3rd day	1st day	2nd day	3rd day	1st day	2nd day	3rd day	1st day	2nd day	3rd day		
Cognitive Play																													
Functional play				11	11	7										1	1	1			2							34	12
Constructive play														14								4	5	6				29	10
Dramatic play										2			3		5				5	5	2		6	3			11	42	15
Games with rules							4	8																	5	2		22	8
Social Play																													
Solitary play				9	11	7										1	1	1										30	10
Parallel play				2										2														4	1
Group play							4	11		2			3	12	5				5	5	2	4	11	9	5	2	11	93	32
No Play																													
Unoccupied / Onlooking / Transition Activities														1							1							2	1
Uncategorized Play								2					3											1	14	10	2	33	11

Table 4.12.

Number of Play Types Observed at Outdoor Play Area 6

Types of Play	Number of Children Observed *(n)*									Total Number of Play	Percentage of Play *(%)*
	First day			Second day			Third day				
	Ob. Tour 1	*Ob. Tour 2*	*Ob. Tour 3*	*Ob. Tour 1*	*Ob. Tour 2*	*Ob. Tour 3*	*Ob. Tour 1*	*Ob. Tour 2*	*Ob. Tour 3*		
Cognitive Play											
Functional play	3	5	4	5	5	2	3	2	5	34	12
Constructive play		2	2		13	6	3	3		29	10
Dramatic play	3	5	2	6	2	3	6	9	6	42	15
Games with rules	3	2		2		4	5	3	3	22	8
Social Play											
Solitary play	3	3	4	5	5	2	3	2	3	30	10
Parallel play		2							2	4	1
Group play	6	9	4	8	15	13	14	15	9	93	32
No Play											
Unoccupied / Onlooking / Transition Activities				1			1			2	1
Uncatogarized:	7	2	8	6		5		1	4	33	11

Note: Ob. Tour = Observation Tour

Figure 4.16. Photos show children who prefers constructive play.

Figure 4.17. Photos shows functional play were seen in the area

Figure 4.18. Photos shows the uncategorized plays which children performed. These plays are: collecting leaves and carrying a friend with the plastic box.

Figure 4.19. Last photo is the time from children decided to build stairs and take back the ball from the outside of the fence.

4.3. Overall Summary of the Findings

In the light of the findings, it can be concluded that outdoor play areas with different design could affect the play types and children play preferences seen in the area. Outdoor play area 1 did not have natural elements or play materials so it can call as a traditional playground. In that area, functional and solitary play were most preferred types of the play. The second play area had a ship shaped modular equipment and most seen play in this area is dramatic and functional play with a group of children. Outdoor play area 3 can be an example of another traditional playground. In the area, dramatic and functional play were also mostly observed play types and this area also had an equipment has a theme. This equipment looked like a truck and this affect children's formation of play. Unlike these three areas, outdoor play area 4 had trees and some natural elements in the field. This design feature allowed children to prefer constructive and uncategorized play such as climbing trees. Although these additional play opportunities, functional play was mostly observed type of play because of the restricted open space, natural elements, and play materials. The last two outdoor play areas (areas 5 and 6) had higher scores from Playground's Physical Elements and Environmental Characteristics Indicative Scoring Scale. It was observed that children played all kinds of play types and used the different parts of the areas.

Moreover, the centers were defined according to equipment and materials in each area, and these centers also gave a chance to children for different types of play. Each modular equipment, swings, seesaws or springs horse create a place for functional play. On the other hand, children preferred to play constructive play in the centers which has natural elements. Additionally, children's play preferences determined with different types such as games with rules, dramatic play, constructive play and uncategorized play at open area centers.

CHAPTER 5

DISCUSSION, CONCLUSION, IMPLICATIONS, AND RECOMMENDATIONS

This chapter discusses children's play preferences in the preschool outdoor play areas in relation to the play areas' design features along with the limitations, implications and the recommendations for further studies.

5.1. Discussion

The results of the study indicated the importance of teacher's attitudes outdoor play. Similar with the research results in the literature, the teachers in the current study indicated the weather conditions can be an obstacle for outdoor play time (Alat, Gümüş & Cavalı, 2012; McClinic & Petty, 2015). Especially, the teachers thought that if the weather is rainy, children can get sick. Additionally, consistent with the similar study results, the teachers in the current study preferred to be an observer during the outdoor play time and did not want to involve in children's play (Alat, Gümüş & Cavalı, 2012; McClinic & Petty, 2015). Moreover, the teachers made a little initiation to enrich children's play with materials in the play area. Only one teacher brought different sort of materials to the outside and children had a chance to engage in different play types.

Play areas which are designed to take children's developmental levels and interests into consideration would provide variety of play opportunities for children to test their limits and skills while trying to solve different sorts of challenges in the play area (DeBord, Hestenes, Moore, Cosco, & McGinnis, 2002). According to Gibson, everything in our environment can lead people into specific behaviors or movements (as cited in Lerstrup & Konijnendijk van den Bosch, 2017). In this context, play areas could direct children toward specific play types and a well-designed play area provides more complex play for children. The main purpose of the current study was to investigate the design features of outdoor play areas and children's play preferences and play types. The findings in this study indicated that the design features of the play

areas directly affected children's play preferences and the types of play they engage during outdoor play time.

Maxwell, Mitchell, and Evans (2008), conducted a study including two stages. In the first stage, they determined that enclosed spaces usually guide children to engage in fantasy play because they are visible to others and they have nodes and connected areas. Drown and Christensen (2014) compared the dramatic play affordances of natural and manufactured outdoor play settings. According to their results, constructive play props, sense of enclosure, and natural surroundings supported children to create complex dramatic play episodes. In line with those results, in the current study, the dramatic play was observed in four areas: outdoor play area 2, 3, 5, and 6. In the area 2 and 3, for instance, the equipment were a big ship and a truck. The appearances of the equipment were enclosed and determined the borders of the play area so children could be observed by adults easily while they were playing. The outdoor play area 5 and 6 had natural elements like soils, trees, and bushes. Children used those areas for dramatic play and they created group play. For example, they formed a playing house with the help of natural elements and shared their roles by communicating with their friends. One of the girls in play area 6 said: 'you are the father and I am the mother'.

In the second stage of their study, Maxwell, Mitchell, and Evans modified the play area by adding loose materials and then observed children's play behaviors (2008). After the modification, it was observed that children engaged in constructive play and they made materials for their dramatic play spaces. Although, none of the outdoor play areas in the current study had loose materials specifically, open-ended materials such as rocks, sand, or blocks gave children the opportunity to engage in constructive play. For instance, outdoor play area 4, 5, and 6 were the places where the constructive play was often observed during playing with natural open-ended materials such as soils, leaves, and plastic blocks.

In another study (Bundy et al., 2011), to increase children's physical activity and social skills during recess time, recycled unstructured materials like cardboard boxes were placed on the school's yards. Although, the results did not show significant differences

on the number of playmates, social competence, or peer acceptance, open-ended materials guided children to play with a group which was also observed in the current study in outdoor play area 5 and 6. Although there were not many recycled unstructured materials in the current study, children used plastic box and car tires for group play in the outdoor play area 6. Plastic box became a material for children to carry their friends through which communication and team working with other children were easily observed. Tires were also unique materials offering children different play opportunities. For example, in the area 6, children often used centers that included tires for engaging in dramatic play. Kuh, Ponte, and Chau (2013), also concluded that children between the ages of 4 and 8 years developed cooperative and constructive play after the installation of natural playscapes. Additionally, it was observed that children's play became more complex rather than basic loco-motor behaviors like running or walking. In line with those findings, in the current study children demonstrated more complex play themes and narratives in the outdoor play area 5 and 6 in which natural elements such as trees, grassy areas, soil, and leaves included in the area. In those two centers, some complex movements and play were observed as well. For instance, in the area 6, children created a play which required to carry a child in the plastic box. Besides, another child was jumping on a pine corn to crush it down. As Nah and Lee (2016) indicated children preferred active and realistic experiences rather than passive activities. In their action research conducted to determine the children's perspectives of play and to get an insight into their play preferences in the outdoor play area the researchers found that children usually preferred to engage in creating, experimenting, implementing, and manipulating tools (Nah & Lee, 2016).

Children usually perceive environmental affordances around them and they categorize the equipment and materials as playable, runnable, jumpable, or climbable (Cosco, 2006). After that, children start to arrange activities according to their environmental affordances and act out in respect to this external information received from their environments (Cosco, 2006). In the light of that, having green areas could provide children areas where they can communicate and play a variety of active games with each other. Dyment, Bell, and Lucas (2009) found that some moderate physical

activities like exploring, climbing, or crawling were observed more often in the green areas. On the other hand, functional activities that were repetitious and motoric were observed more often in the manufactured play equipment. Similarly, children in the outdoor play area 6 with a grassy area generally illustrated movements that imitated animals while jumping and crawling (e.g. jumping like a rabbit). Children, however, were playing more functionally and motor games at the centers where having manufactured play equipment.

Fjørtoft (2004), designed an experimental study to investigate the affordance of landscapes for play and the effects of outdoor activities on motor development of children. Participants were 5 to 7 years old children and the study carried out in the small forest close to the kindergarten. Results indicated that the forest afforded movements such as climbing and sliding. In addition, the study continued during the winter season, so the area also afforded movements like tumbling, crawling, and rolling. Little and Sweller (2014), also argue that natural elements such as trees, rocks and large open areas guide children for risky play. This study conducted with 245 early childhood educator and results showed that natural areas afforded risky play for children such as trees for climbing or rocks for jumping. In the current study, those kinds of risky play movements such as tumbling, crawling, or rolling were not observed. It can be said that all of the 6 outdoor play areas could not afford these movements and risky play except from climbing. Moreover, Fjørtoft's study (2004) showed that children created play with loose and natural elements like cone war and space ship. In the current study, children also used natural elements like tree sticks in their police themed-play in the outdoor play area 5.

The design features of the play areas and its effect on children's play choices were well-documented in the literature. For instance, Dyment and O'Connell (2013) concluded that functional play was observed more often in traditional playgrounds with manufactured equipment. When the play areas, on the other hand, don't include such structured features and offer more individual play choices with open-ended materials, children engaged in more constructive play (Dyment & O'Connell, 2013). In addition, Wooley and Lowe (2012) pointed out that physical and environmental characteristics of play areas would change the value of a child's play. According to

their evaluation of the play areas (5 and 6 were the highest score one play area could have), all types of play were observed, and those were constructive, functional, fantasy, social, games with rules. On the other hand, the only functional play was seen in the play area which had the lowest score. Those findings indicated similarity with the current study results. Outdoor play area 1 and 4 had the lowest score with a frequent occurrence of functional play. In those two areas, children mostly preferred to play in the traditional playground equipment such as swings and slides due to the limited design features in the areas. However, in the outdoor play area 5 and 6 which got highest scores, all play types (functional, constructive, dramatic, games with rules, and uncategorized play) were observed in different variety.

Settings mixed with both manufactured and natural materials also provide children range of play opportunities (Zamani, 2017). While natural elements offer constructive play opportunities, the manufactured ones afford physically challenging play opportunities along with various locomotor movements and balance activities. Refshauge, Stigsdotter, and Petersen (2013) also encountered similar results during investigating the play types of four different playgrounds in Danish public playgrounds. Functional play was the most common play types observed at the modular play structures such as slides and swings. Additionally, the constructive play was seen mostly around the sand area. Consisting with those results, children in the current study preferred to play functional play at the centers which had modular equipment such as slides, swings, or see-saws. In addition, they played constructive play at the centers which had natural elements such as sand, soil, leaves, and small bushes.

As seen from the aforementioned studies, diverse play areas at the outdoor play setting in preschools would meet variety of needs of children. According to Eager and Little (2011), children should be prevented from Risk Deficit Disorder which can be defined as tend to remove all risk in daily life; and as results obesity, lack of independency, limited perception and judgement skills happen to occur. In the outdoor play area, children can face with challenges and risks and with this way they can test their problem-solving skills. As a result, they develop social competence (Greenfield, 2004; Kennedy, 2009). Play should force children to develop their abilities to the higher

level. Children should practice climbing, swinging, and sliding with different design elements in the play area. These kinds of practices would help children to develop their physical abilities and movement skills (Stephenson, 2003). When looked at the results of the current study, it is seen that children had limited chances for risk taking. For example, climbing activity was afforded by only three outdoor play areas (the outdoor play areas 4, 5, and 6) with trees, truck tires, and climbing equipment.

According to the Sandseter (2009), there are 6 risky play categories: Play with great heights, high speed, harmful tools, dangerous elements, rough-and-tumble play, play where the children can disappear/get lost. Those categories can be afforded with the materials and equipment in the outdoor play areas. As mentioned above, in the current study movements which requires risk taking were limited and this situation can be explained with risky play categories. None of the 6 outdoor play areas have harmful tools (hammer, knives) and dangerous elements (water, fire). In addition, climbing equipment in the outdoor play area 3 and 6 did not provide great height like the climbing parts of the modular equipment in the same areas. For providing high speed, slides and swings can be used. On the other hand, when looked at the slope of the slides in the 6 outdoor play area, it was seen that they were not provide enough challenge for children. Rough-and-tumble play could also afford with open and grass areas and that was limited for all of the outdoor play areas. Disappearing in the area could not be observed in the current study. Only a girl got a chance to lay down in the small modular house shaped equipment (see figure 6.2) in the outdoor play area 6 but there were also other children. She could not get a chance to get lost in the area.

Metin (2003), carried out a study at Kurtuluş Park in Turkey with 70 children ages between 6 to 12 years old. Children's favorite type of playground equipment and play behavior of the child were observed in the play area and interviews were conducted with them. Results stated that children had desire to play with the equipment and materials in different ways and traditional playgrounds indicated limited aspects to independent decision making and offer opportunity for children's play choices. According to the results, jumping and playing with water and mud were children's most favorite activities at the playground. They also mentioned that they like to climb trees, jump over the bushes, and collecting bugs. That outdoor play area did not belong

to preschool and mixed aged children can play in that area. On the other hand, it is seen that children preferred to play in natural areas and traditional playground provided limited play opportunities for children with similar to the current study. In another study which carried out in 8 different cities in Turkey showed that sand area and water did not use as an important play element in the play areas (Aksoy, 2011). Similar to the current study, Aksoy also concluded that natural and free areas in the playgrounds were inadequate, so they did not provide imagination and learning opportunities. On the other hand, Moore (2006) argued that natural playground is a place for combining natural world and formal learning. Because of that, outdoor play areas should include different kinds of natural elements and provide children creative and simulative environment to discover and learn.

5.2. Conclusion

The current study showed that the outdoor play areas' design could affect children's play preferences. First of all, modular play equipment which seen mostly in the traditional playgrounds provided functional play opportunities for children. Those equipment were seen all of the 6 outdoor play areas. Children were swinging, sliding, or climbing in those centers but those equipment did not much effective to provide risky play like high speed or height. In addition, some of those equipment had thematic appearances like ship, truck, or house so children could easily form dramatic play in those equipment according to their shape. It can be said that those kinds of equipment guide children to play in regard to a theme, but it can be also considered as a limitation. When children see a ship, they create a play about soldier, sea captain, or pirate. If the play area does not have variety of play equipment and materials, children can be restricted with those appearances. Because of that, the outdoor play area also should provide open-ended and loose materials to create their own play and their own play agenda. For instance, a big cardboard box could be a ship, bed, or spacecraft during play. Unfortunately, the outdoor play areas in the current study did not have any loose materials.

Another main point in the study is lack of natural elements and open-ended materials in the outdoor play areas which results with the lack of constructive play opportunity.

Constructive play was observed only the areas which has natural elements and open-ended materials. Children only preferred to construct something when they interacted with leaves, soil, or sand, and rocks in the outdoor play areas 5, 6, and 7. Additionally, open and free areas provided children places to make different movements. If there was an additional play material like a ball, children preferred to play games with rules in those centers. Also, they create uncategorized play in those areas such as imitating a rabbit and jumping like it.

Another important finding was to see children who could not find or decide an equipment or materials to play. They preferred to look around or sit some places in the area. The reason might be the lack of equipment proportional to the number of children, and not taking into account the possible interests of all children, and just not want to play in that time. In addition, temperamental characteristics of children and peer relations can be also a factor in that sense.

One of the significant findings was also to observe different sort of uncategorized play in different centers at the outdoor play areas. If the area had trees, children preferred to climb them, and that allowed for risky play. In addition, in the outdoor play areas which has natural elements such as pine corns or bugs, children preferred to make an experiment or observed them.

5.3. Implications

The design features of outdoor play areas have a strong influence on young children's play preferences and play activities they engage in that environment. While traditional playground equipment affords more functional play; natural and open-ended playground features afford more constructive play for children. Moreover, thematic equipment in the play area such as ship or truck could create dramatic play opportunities for children. Being parallel with the literature, the current study results indicated that while designing outdoor play areas specific design features should be taken into consideration. For instance, providing children open spaces along with natural and open-ended materials is crucial to diversify children's play types and to create a rich environment for them. According to Parsons (2011), different type of outdoor play areas such as natural, adventure, or traditional, could provide different

experiences for children. That is, while natural playgrounds support process-oriented activities, adventure playgrounds encourage children physically and intellectually to test their limits. Because of that, designers should consider children's preferences as a prerequisite and develop outdoor play areas according to these aspects in mind. Moore argue that natural playscapes in the school environment could start and maintain the lifelong learning through nature with bounds between play, learning, and education (2014).

In the design process, it is necessary for school administrators and teachers to be aware of the impact of the equipment and materials in the play area on children's play types and preferences and make an effort to select the equipment and materials accordingly. According to Moore (2006), school playgrounds should be designed to provide children to experience life skills which can face in the playground. In addition, Frost (2008), said that 'history and a century of scholarly research say that play is essential for healthy development. We must save playgrounds, free outdoor play, and recess, because they matter—for children's health, for their development, and for their future.' In order to provide rich outdoor play experiences for children and encourage them to create more complex play types, educators would also help in the design process while pointing out children's selections and preferences.

5.4. Limitations of the Study and Recommendations for further studies

For the further studies, different preschool outdoor play areas with increased numbers would be investigated. Research carried out in different regions of the country would illustrate different climatic conditions and its effect on children's play preferences. Additionally, future study may need to collect more data from outdoor play areas and more substantial number of children. Observation of the playgrounds planned to be completed within a month for determining children's play preferences. If research carries out in a broader period, more data can be collected, and this limitation can be prevented. Future studies could also focus on teacher perspective and teacher behaviors during outdoor play time since they are the critical components of children's outdoor play for guiding or changing the play types children engage. Moreover, teachers and school administrators usually prefer to arrange outdoor play time in good

weather conditions for preventing children from getting sick. However, children might prefer different play types in the outdoor play environment in different weather conditions. Further studies would collect data in different weather conditions to see any differences regarding the weather.

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APPENDICES

A: Physical elements and environmental characteristics indicative scoring /Oyun Alanının Fiziksel Elemanları ve Çevresel Karakterleri Puanlama Ölçeği

Alan İçindeki Elemanlar	Skor 0-5*					
	0	**1**	**2**	**3**	**4**	**5**
Sabit oyun ekipmanlarının çeşitliliği: (ekipman sayısı: salıncak, tırmanma aparatları, denge tahtası, kaydırak, tahterevalli, çoklu oyun yapıları, metal zıp zıp) 0=yok 1=bir 2=iki-üç 3=dört-beş 4=altı-yedi 5=hepsi						
	0	**1**	**2**	**3**	**4**	**5+**
Hareketli ekipmanlar (Hareketli ekipman sayısına bağlı) 0=yok 1=bir 2=iki adet 3=üç adet 4=dört adet 5=5 ve daha fazla						
	0	**1**	**2**	**3**	**4**	**5**
Bireysel, grup ya da takım hareketleri/aktiviteleri için açık alan Bireye, gruba ya da takıma serbest hareket için sağladığı açık alan.						

0=yok 1=bire, grup ya da takım aktiviteleri için fiziksel bariyerlerle sınırlandırılmış alan 2=sadece biri için serbest hareket alanı 3=ikisi için serbest hareket alanı 4=hepsi için bir miktar serbest hareket alanı 5=hepsi için fiziksel bariyer olmadan tamamen serbest hareket alanı						
Farklı büyüklükte ve çeşitlilikte alanlar (çok küçük/özel, küçük, orta, büyük, korunaklı açık alanlar.) 0=yok 1=bir 2=iki 3=üç 4=dört 5=bütün bu alanlar	**0**	**1**	**2**	**3**	**4**	**5**
Bitkiler/ Ağaçlar Bitkilerin, görsel uyaran ve etkileşim için sundukları fırsatların çeşitliliği 0=yok 1=minimum 2=sınırlı sayıda tür 3=alanın bir kısmı içinde farklı türler, görsel uyaran ya da etkileşim fırsatları 4=alanın boyunca farklı türler, görsel uyaran ya da etkileşim fırsatları 5=bütün bu alanda ya da bir kısmında farklı türler, görsel uyaran ya da etkileşim fırsatları	**0**	**1**	**2**	**3**	**4**	**5**
Arazi şekli Arazi şekillerindeki uyaran, çekici, zorlayıcı değişiklikler	**0**	**1**	**2**	**3**	**4**	**5**

0=yok 1=yoğunlukla düz 2=biraz değişiklik 3=bazı değişiklikler 4= bazı değişiklikler, 2 tanesi 5=birçok değişiklikler bütün hepsi						
	0	**1**	**2**	**3**	**4**	**5**
Açık Uçlu Materyaller Alan boyunca açık uçlu materyalleri taşımak için erişim, miktar ve fırsat 0=yok 1=az erişim 2=çok küçük miktarda ve küçük bir tanımlanan alan 3=az miktarda ya da küçük bir tanımlanan alan 4=kullanılabilir ve taşınabilir 5=bütün alan boyunca kullanılabilir ve taşınabilir						
	0	**1**	**2**	**3**	**4**	**5**
Doğal Materyaller Ör: taşlar, su, kum, ağaç kabuğu, yosun, yapraklar, çamur, ağaç kütükleri, meyve, çubuklar Bütün alan boyunca erişilebilen doğal materyallerin sayısı ve erişilebilirliği 0=yok 1=1 tane 2=tanımlanan alanda 2-3 tane 3=tüm alan boyunca 2-3 tane 4=tanımlanan alanda 4 ve daha fazla 5=bütün alan boyunca 4 ve daha fazla						
	0	**1**	**2**	**3**	**4**	**5**
Su ve Kum Suya ve kuma erişim ve ikisini de kullanma ve katılım fırsatı 0=ikisine de erişim yok						

1=su ya da kuma erişim var ama kullanma ya da katılım yok 2= ikisine de erişim var ama kullanma ya da katılım yok 3= ikisine de kullanma ya da katılım ile birlikte erişim var 4= ikisine de kullanma ve katılım ile birlikte erişim var 5=birden fazla formda ikisine de kullanma ve katılım ile birlikte erişim var						
Belirgin Fiziksel Sınırlar Keskin ve belirgin sınırlılığı olan, görsel uyaran ve katılım 0=bütün ya da alanı tanımlayan fiziksel sınır, ama görsel olarak ilgi çekici ya da katılımcı değil 1=bütün alan fiziksel sınırlar ile tanımlanmış ya da görsel olarak ilgi çekici ya da katılımcı 2= bütün alan fiziksel sınırlar ile tanımlanmış ya da görsel olarak ilgi çekici ve katılımcı 3=alanın bir kısmı fiziksel olarak sınırlandırılmış ve görsel olarak ilgi çekici ya da katılımcı 4= alanın bir kısmı fiziksel olarak sınırlandırılmış ve görsel olarak ilgi çekici ve katılımcı 5=tüm alan belirgin bir fiziksel sınır olmadan serbest	**0**	**1**	**2**	**3**	**4**	**5**
Oturma fırsatları: Sosyal etkileşim için fırsatlar Oturma fırsatlarının sayısı ve yerleri 0=yok 1=biraz, oyun içinde değil 2=sınırlı bir şekilde oyun alanı içinde, alan kenarlarına yerleştirilmiş 3=sadece oyun alanı içinde, sınırlı, izole ve tek tük 4=alan için biraz ama etkileşimi desteklemeyen 5=oyun alanı boyunca çok fazla	**0**	**1**	**2**	**3**	**4**	**5**
	0	**1**	**2**	**3**	**4**	**5**

Zemin malzemesi çeşitliliği: çim, kum, ağaç kabuğu, çakıl, lastik/kauçuk Zemin malzemelerinin sayısı ve ilgi çekici ve uyarıcı olması 0=yok 1=bir çeşit ama çekici ya da ilham verici değil 2= bir ya da iki çeşit, çekici ya da ilham verici 3= bir ya da iki çeşit, çekici ve ilham verici 4= ikiden fazla çeşit, çekici ya da ilham verici 5= üç ya da daha fazla çeşit, çekici ya da ilham verici						

Çevresel Özellikler	Skor* (0-5)					
	0	**1**	**2**	**3**	**4**	**5**
Alan tanımlı mı? Hem çocuklar hem yetişkinler için davetkâr bir giriş, belirgin olmayan alan sınırları, gözetim alanı, oturma alanları var mı? 0=yok 1=sadece biri mevcut 2=iki tanesi mevcut 3=üçtanesi mevcut 4=dört tanesi mevcut 5=hepsi mevcut						
	0	**1**	**2**	**3**	**4**	**5**
Alan çeşitli deneyim fırsatları yaratarak, doğal materyaller içererek ve harekete izin vererek uyarıcı mı? Bireysel harekete, materyallerin hareketliliğine, duyuların, doğal elementlerin kullanımına, farklı materyallere ulaşım sağlamaya izin verme						

0=yok 1=sadece biri mevcut 2=iki tanesi mevcut 3=üçtanesi mevcut 4=dört tanesi mevcut 5=hepsi mevcut						
	0	**1**	**2**	**3**	**4**	**5**
Alan zorlayıcı/test edici mi? Sallanma, kayma, dengede durma, salınım, zıplama, tırmanma için fırsat tanıyor mu? 0=yok 1=sadece biri mevcut 2=iki tanesi mevcut 3=üç tanesi mevcut 4=dört tanesi mevcut 5=hepsi mevcut						
	0	**1**	**2**	**3**	**4**	**5**
Öğrenme Fırsatları Tanıyor mu? Doğal malzemelere ulaşım, katılım ya da kullanma için fırsat verme 0=yok 1=materyallerle ya da doğal çevreyle etkileşim için sınırlı fırsat ve herhangi bir katılım ya da kullanma için fırsat yok 2=birkaç materyale ulaşım var ama doğal çevreyle etkileşim için sınırlı fırsat ve herhangi bir katılım ya da kullanma için sınırlı fırsat var 3=birkaç materyale ulaşım var ve biraz doğal çevreyle etkileşim için sınırlı fırsat ve herhangi bir katılım ya da kullanma için sınırlı fırsat var 4=çeşitli materyale ulaşım var ve birden fazla alanda doğal çevreyle etkileşim, katılım ya da kullanma için fırsat sağlıyor 5=çeşitli materyale ulaşım var ve herhangi bir sınırlama olmadan doğal çevreye katılım ve kullanma için fırsat tanıyor						

B: Parten/Piaget play recording sheet

Preschool Name: Observation dates: Weather: Number of children: Girl: Boy:			**Center A**	**Center B**	**Center C**	**Center D**
First Observation Tour	Cognitive Level	*Functional Play*	G: B:	G: B:	G: B:	G: B:
		Constructive Play	G: B:	G: B:	G: B:	G: B:
		Dramatic Play	G: B:	G: B:	G: B:	G: B:
		Games with rules	G: B:	G: B:	G: B:	G: B:
	Social Level	*Solitary Play*	G: B:	G: B:	G: B:	G: B:
		Parallel Play	G: B:	G: B:	G: B:	G: B:
		Group Play	G: B:	G: B:	G: B:	G: B:
	No Play (unoccupied/onlooking/transition)		G: B:	G: B:	G: B:	G: B:
	Uncategorized Play		G: B:	G: B:	G: B:	G: B:
Second Observation Tour	Cognitive Level	*Functional Play*	G: B:	G: B:	G: B:	G: B:
		Constructive Play	G: B:	G: B:	G: B:	G: B:
		Dramatic Play	G: B:	G: B:	G: B:	G: B:
		Games with rules	G: B:	G: B:	G: B:	G: B:
	Social Level	*Solitary Play*	G: B:	G: B:	G: B:	G: B:
		Parallel Play	G: B:	G: B:	G: B:	G: B:
		Group Play	G: B:	G: B:	G: B:	G: B:
	No Play (unoccupied/onlooking/transition)		G: B:	G: B:	G: B:	G: B:
	Uncategorized Play		G: B:	G: B:	G: B:	G: B:
Third Observation Tour	Cognitive Level	*Functional Play*	G: B:	G: B:	G: B:	G: B:
		Constructive Play	G: B:	G: B:	G: B:	G: B:
		Dramatic Play	G: B:	G: B:	G: B:	G: B:
		Games with rules	G: B:	G: B:	G: B:	G: B:
	Social Level	*Solitary Play*	G: B:	G: B:	G: B:	G: B:
		Parallel Play	G: B:	G: B:	G: B:	G: B:

		Group Play	G:	B:	G:	B:	G:	B:	G: B:
	No Play (unoccupied/onlooking/transition)		G:	B:	G:	B:	G:	B:	G: B:
	Uncategorized Play		G:	B:	G:	B:	G:	B:	G: B:
Notes									

C: Research Ethics Committee Approval of Middle East Technical University

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07 HAZİRAN 2017

Konu: Değerlendirme Sonucu

Gönderen: ODTÜ İnsan Araştırmaları Etik Kurulu (İAEK)

İlgi: İnsan Araştırmaları Etik Kurulu Başvurusu

Sayın Yrd. Doç. Dr. Serap Sevimli ÇELİK ;

Danışmanlığını yaptığınız yüksek lisans öğrencisi Hatice Şebnem ÇETKEN' in ***"Okul Öncesi Dış Mekan Oyun Alanı Tasarımlarının Çocukların Oyun Tercihlerine Etkisinin İncelenmesi"*** başlıklı araştırması İnsan Araştırmaları Etik Kurulu tarafından uygun görülerek gerekli onay **2017-EGT-128** protokol numarası ile **01.09.2017 – 31.12.2017** tarihleri arasında geçerli olmak üzere verilmiştir.

Bilgilerinize saygılarımla sunarım.

Prof. Dr. Ş. Halil TURAN
Başkan V

Prof. Dr. Ayhan SOL
Üye

Prof. Dr. Ayhan Gürbüz DEMİR
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Doç. Dr. Yaşar KONDAKÇI
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BULUNAMADI
Yrd. Doç. Dr. Pınar KAYGAN
Üye

Yrd. Doç. Dr. Emre SELÇUK
Üye

D: Approval of Ministry of National Education

ÖIDB

T.C.
ANKARA VALİLİĞİ
Milli Eğitim Müdürlüğü

Sayı : 14588481-605.99-E.17797809
Konu : Araştırma İzni

26.10.2017

ORTA DOĞU TEKNİK ÜNİVERSİTESİNE
(Öğrenci İşleri Daire Başkanlığı)

İlgi: a) MEB Yenilik ve Eğitim Teknolojileri Genel Müdürlüğünün 2012/13 nolu Genelgesi.
b) 25/08/2017 Tarihli ve 54850036-300-4177 sayılı yazınız.

Enstitünüz Temel Eğitim Anabilim Dalı Okul Öncesi Eğitimi Yüksek Lisans öğrencisi Hatice Şebnem ÇETKEN'in **"Okul Öncesi Dış Mekan Oyun Alanı Tasarımlarının Çocukların Tercihlerine Etkisinin İncelenmesi"** kapsamında uygulama talebi Müdürlüğümüzce uygun görülmüş ve uygulamanın yapılacağı İlçe Milli Eğitim Müdürlüğüne bilgi verilmiştir.

Görüşme formunun (4 sayfa) araştırmacı tarafından uygulama yapılacak sayıda çoğaltılması ve çalışmanın bitiminde bir örneğinin (cd ortamında) Müdürlüğümüz Strateji Geliştirme (1) Şubesine gönderilmesini rica ederim.

Vefa BARDAKCI
Vali a.
Milli Eğitim Müdürü

31.10.2017-16949

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E: Turkish Summary/Türkçe Özet

GİRİŞ

Oyun eğitimciler ve filozoflar tarafından tartışılmış ve literatürde çeşitli tanımlarla ve teorilerle yer edinmiş önemli bir kavramdır. En temel tanımıyla oyun, çocukların ihtiyaçlarına ve isteklerine göre şekillenen davranışlardır. Ayrıca çocuklar içsel bir oyun oynama isteği ile doğarlar ve bu sayede herhangi bir zamanda ve yerde oyun oynayabilirler (Johnson, Christie, & Yawkey, 1999).

Aynı zamanda oyun, çocukların bütün gelişiminde hayati bir role sahiptir ve çocuklara öğrenmenin gerçekleşebileceği ortamları sağlar. Çocukların sadece sağlığı ve refahı için yararlı olmakla kalmaz, aynı zamanda çocukların bilişsel ve iletişim becerilerini, yaratıcılıklarını ve hayal güçlerini destekler (Anderson-McNamee & Bailey, 2010; Monsur, 2013; Weisberg, Zosh, Hirsh-Pasek ve Golinkoff, 2013). Örneğin, çocuklar tahta bloklarla oynarken ince motor kaslarını, problem çözme becerilerini ve yaratıcılıklarını bir şeyler inşa etmek için kullanırlar. Aynı zamanda, başka çocuklarla konuşma ve iletişime geçme şansı elde ederek iletişim becerilerini geliştirirler. Oyun alanları ve öğrenme ortamları ise çeşitli oyuncaklar ve materyaller yardımıyla farklı aktiviteleri destekleyen ortamlar olarak tanımlanabilir. Okul öncesi ortamları genellikle çocukların öğrenmesine, oynamasına ve büyümesine izin veren ortamlar olarak tanımlanır. Bu ortamlar dış mekânlara da sahip olan alanlardır yani sadece iç alanlardan ibaret değildirler (DeBord ve ark., 2003). Oyun ve öğrenme ise çocuklar oyunlara katıldıklarında ve çevreleriyle bağlantı kurdukları zaman çocukların davranışlarda gözlemlenebilen iki sonuç olabilir (Monsur, 2013). Bu nedenle çocukların içinde bulundukları çevre önemlidir. İyi tasarlanmış bir çevre, becerilerini ve sınırlarını farklı seviyede zorluklarla test edebilmeleri için çocukları güdüler (DeBord, Hestenes, Moore, Cosco, & McGinnis, 2002).

Özellikle dış mekân oyun ortamlarının çocuklara geniş ve açık alanlar sağlamasıyla birlikte çocuklar özgür ve bağımsız olarak hareket edebilirler. Bu sayede çocuklar

çevrelerindeki dünyayı keşfederken çeşitli şeyleri deneyimleme şansı yakalayabilirler (Burriss & Burriss, 2011; Mayrand & Waters, 2015). Aynı zamanda, sınıfın içinde yapılması mümkün olmayan koşma, atlama, yuvarlanma gibi büyük hareketler yaparak özgürce hareket etme şansına da sahip olurlar (Rivkin, 2000).

Problem Durumu

Teknolojik gelişmelerin ilerlemesi, akademik becerilere olan yoğun ilgi ve güvenlik kaygıları ile birlikte oyun kültürü değişmiştir. Çocuklar genellikle dışarıda zaman geçirmektense teknolojik aletlerle zaman geçirmektedirler (Ahiloğlu-Lindberg, 2012). Oyun ve konseptleri, içinde yaşanılan zaman dilimlerinin özellikleri ve yaşam koşulları ile yıllar boyunca değişmiştir. Örneğin geçmişte çocuklar çoğunlukla bahçelerde, sokaklarda ve uygun geniş yerlerde oynamaktaydılar. Ayrıca birey olarak değil, gruplar halinde oyun oynamayı tercih ediyorlardı (Başal, 2007). Bu durumun geçmişteki ve günümüzdeki oyun seçenekleri arasındaki önemli bir farkı ortaya koyduğu söylenebilir. Dış mekanlarda çocukların yaparak ve yaşayarak öğrenme deneyimleri, oyunları ve yaratıcı çalışmaları geleneksel oyun alanlarında bulunan çeşitli engellerle karşılanmaktadır (Frost, & Keyburn, 2013). Türkiye'de de açık alan ve oyun alanlarının eksikliği, yoğun trafik ve güvenlik kaygılar gibi unsurlar dış mekân oyunlarının azalmasının yaygın nedenlerindendir (Başal, 2007; Cevher-Kalburan, 2014).

Oyunun önemi bilinmesine rağmen, çocukların dış mekanda oynadıkları oyunlar ve oyun davranışları çocukların dış mekân oyun zamanları gibi sınırlı ilgi görmektedir. Erken çocuklukla ilgili birçok araştırma, sınıf içi ortamlarla ilgili olup dış mekân ortamlarının çocukların oyun davranışlarına olan etkilerini dikkate almamaktadır (Chakravarthi, 2009).

Çocukların oyun davranışları ve seçimleri çeşitli faktörlerden etkilenir. Bugün çocuklar çoğunlukla güvenlik kaygıları nedeniyle yetişkinler tarafından oynamaya teşvik edilmemekte ve iç mekanlarda daha fazla zaman harcadıkları görülmektedir. Ne yazık ki günümüzdeki dış mekân oyun alanları, çocukların çeşitli yönleriyle becerilerini geliştirmelerine ve sahip oldukları becerilerin sınırlarını zorlamalarına yardımcı olmayan benzer aktiviteler sunmaktadır. Ancak, dış mekân oyun alanları

çocukların gelişimini pek çok açıdan destekleme şansına sahip olduğu için çok önemlidir. Bu nedenle, dış mekân oyun ortamı tasarımı da ayrıca bir önem kazanmaktadır. Dış mekân oyun alanlarının tasarımı ve çocukların oyun tercihleri üzerindeki etkileri akıllıca belirlenmelidir. Bu sayede, hangi tür materyallerin ve ekipmanın çocukların aktif hareketini, motor becerilerini veya sosyal oyunlarını destekleyebileceği belirlenebilir. Oyun alanları bu öncelikler dikkate alınarak tasarlanabilir. Böylelikle çocuklara gelişimlerinin her yönüne yönelik anlamlı hareketler sağlayan oyun alanlarında aktif yaşam tarzları, teşvik edilebilir.

Araştırma Soruları

Çalışmayı yönlendirmek için aşağıdaki araştırma soruları kullanılmıştır.

1) Okul öncesi dış mekân oyun alan tasarımları okul öncesi çocukların oyun türlerini ne ölçüde etkiler?

2) Dış mekân oyun materyalleri ve ekipmanları okul öncesi çocukların sosyal ve bilişsel oyun türlerini ne ölçüde etkiler?

Çalışmanın Önemi

Hem ekipman türleri hem de çocukların oyun tercihlerindeki tarihsel değişimler göz önünde bulundurulduğunda, dış mekân oyun alanlarının çocuk oyun tercihleri üzerindeki rolleri açısından incelenmesi önemlidir. Dış mekân oyun alanlarının problemlerini ve bunların çocuk oyun türleri üzerindeki etkilerini belirlerken, eğitimciler çocukların fiziksel, bilişsel ve sosyal olarak bu yerlerden avantaj elde etmeleri için daha nitelikli oyun alanları düzenleme şansı yakalayabilirler. Araştırmalara bakıldığında genel olarak neyin öğretilmesi gerektiği veya nasıl öğretilmesi gerektiği ile ilgili endişelere yoğunlaştığı görülmektedir. Çocukların fiziksel ortamdan nelere elde ettiği daha az dikkat çekmektedir (Sanoff, 2009). Bu nedenle çocukların fiziksel ortamları araştırılmalı ve tasarım özellikleri göz önünde bulundurulmalıdır.

Çalışmanın amacı, okul öncesi dış mekân oyun alanlarının tasarımlarının ve çocukların oyun tercihlerinin incelenmesidir. Bu çalışma ile, çocukların oyun tercihleri dış mekân oyun alanları tasarım özellikleri göz önünde bulundurularak incelenmiştir. Bu sayede

dış mekân oyun alanlarının tasarımlarının çocuk oyunlarını nasıl şekillendirip yönlendirebileceği belirlenmiştir. Çalışmanın bulguları sayesinde, çocuk oyunlarında oyun alanı tasarımlarının nasıl etkili olabileceği ve tasarım sürecinde göz önünde bulundurulması gereken önemli noktalar vurgulanmaktadır. Böylece çocukları sınırlamadan zengin oyun fırsatları sunan ve gelişimlerini her yönüyle destekleyen dış mekân oyun alanları tasarlanabilir.

Çalışmada Yer Alan Terimlerin Tanımları

Mevcut çalışmanın ana terimlerinin tanımı aşağıda verilmiştir:

Oyun keyifli ve içgüdüseldir, çocuklar tarafından yaratılır ve yönetilir (Anderson-McNamee & Bailey, 2010). Oyun, insanların sanat, drama ve dil gibi farklı aktivitelerle birleştirebileceği içgüdüsel aktivitelerdir. Oyun ayrıca, gerçek yaşamın içinde olarak günlük yaşam koşullarına uyum sağlamaktan ziyade, zihnin oluşturduğu farklı bir ortamda olmak gibi tanımlanabilir (Johnson, Christie ve Wardle, 2005).

Dış mekân oyun alanı, çocuk oyunu için bir araya getirilmiş, yaratılmış veya tasarlanmış doğal veya üretilmiş materyallerden ve ekipmanlardan oluşan alanlardır (Frost, 2012).

Parten / Piaget Oyun Seviyeleri iki ana bölüme sahiptir: Bilişsel seviye ve Sosyal seviye.

Bilişsel Oyun Seviyesi dört tür oyun içerir: *Fonksiyonel oyun,* nesnelerle veya nesneler kullanılmadan yapılan tekrarlayan kas hareketidir. Koşmak, atlamak, toplanmak, nesneleri veya malzemeleri manipüle etmek gibi hareketleri içerir. *Yapı-inşa oyunu,* bir şeyler oluşturmak için nesneleri veya malzemeleri kullanmak olarak tanımlanır. Örneğin, bir robotun kum ya da oyun hamuru kullanılarak inşa edilmesi gibi. *Dramatik oyun*, rol oynama veya hayali dönüşümler yapmaktır. Bir anne, çocuk ya da canavar gibi davranmak dramatik oyunun bir örneği olabilir. *Kurallı oyunlar* ise, önceden oluşturulmuş oyun kurallarının tanınmasını ve kabul edilmesini içerir. Çocuk bu oyunu kurallara göre oynar (Johnson ve ark., 1999).

Sosyal Oyun Seviyesi üç tür oyun içerir: *Tek başına oyun*, çocuğun materyalle yalnız oynadığı ve başkalarıyla hiçbir iletişiminin olmadığı bir oyun türüdür. *Paralel oyun,*

çocukların oyuncaklarla oynarken diğer çocuklarla yakın mesafede durdukları ancak birlikte oyun oynamak için hiçbir girişimde bulunmadıkları aktivitelerdir. *Grup oyunu,* belirlenmiş rolleri olan veya olmayan oyunları diğer oyuncularla birlikte oynamaktır (Johnson ve ark., 1999).

Tasarım, üretilmeden önce binanın, giysinin veya diğer nesnelerin görünüşünü ve işlevini planlamak veya çizmek olarak tanımlanır. Mevcut çalışmada, dış mekân oyun alanında ekipman ve malzemelerin yerini ve görünüşünü belirtmek için tasarım kavramı kullanılmıştır.

Dış Mekân Oyun Alanları

Oyun parkı fikri basit tırmanma yapıları ve kum havuzları ile çocukların gerçek dünya hakkında kendilerinin bir şeyler öğrenebileceği ortamlar oluşturma amacıyla 19.yy da başlamıştır. Froebel ve Patalozzi gibi eğitimciler ve filozoflar doğal ortamları çocukları yaratıcı olmaları için desteklediği ve onlara serbest alan sağladığı için desteklemişlerdir (Frost, 2012). Yıllar geçtikçe, oyun parkındaki ekipmanların boyutlarının güvenlik endişesi nedeniyle değiştiği görülmüştür. Sanayileşme ve 2. Dünya Savaşı da oyun alanlarının tasarımlarında etkili olmuştur. Sonuç olarak, bu etmenlerle birlikte geleneksel oyun alanları gelişmiştir. Bunun nedeni toplumun çocukların güvenliklerini sağlamaya ve onların başına gelebilecek her türlü zarardan korumaya çok fazla önem vermeye başlamasıdır. Bu şekilde olan geleneksel oyun alanları temel olarak salıncak, kaydırak ve tahterevalli gibi fabrika üretimi materyal ve ekipmanlardan oluşmaktadır.

Geleneksel oyun alanlarına ek olarak, 2. Dünya Savaşı Macera Oyun Alanı olarak anılan ve artık materyallerle oluşturulan yeni bir bakış açısını geliştirmiştir. Bu bakış açısı, çocuklara çeşitli materyaller kullanarak kendi oyun alanlarını kurma şansı tanımaktadır (Clandaniel, 2009). Macera oyun alanı sonrasında, doğanın öneminin vurgulandığı ‘Doğadaki Son Çocuk’ isimli kitap yayınlanmış ve doğa ile çocuk arasındaki iletişim vurgulanmıştır (Louw, 2008). Bunun sonucunda, çocukların doğa ile iletişim kurarak yaratıcı oyunlar oynamasına odaklanan Doğal Oyun Alanları yaygınlaşmıştır (Clandaniel, 2009; Moore, 2006). Bütün oyun alanları göz önüne alındığında çocukların çevresinde en çok geleneksel oyun alanları ve bu oyun

alanlarının standartlaşmış ekipmanları olan salıncak, kaydırak gibi elemanlardan oluştuğu tespit edilmiştir (Frost, 2012; Olgan & Kahriman-Öztürk, 2011). Frost (2008), yaratıcılıktan uzak, sert zemine, aşırı yüksekliğe sahip ekipmanlardan ve sadece standart oyun ekipmanlarından oluşturulan oyun alanlarını iyi tasarlanmamış alanlar olarak görmektedir. Çocukların bu tarz alanlarla çevrelenmiş olmasının onların gelişimlerine etki edeceğini belirtirken özellikle doğal oyun alanlarının çocukların fiziksel ve zihinsel sağlığı üzerinde önemli etkisi olduğunu vurgulamıştır. Wooley ve Lowe (2012), oyunun değerinin oyun ekipmanı miktarı, sabit oyun ekipmanı türleri, artık materyal kullanımı gibi oyun alanlarının fiziksel ve çevresel özelliklerine bağlı olarak arttığını savunmaktadır.

Oyun Alanlarının Başlıca Özellikleri

İyi tasarlanmış dış mekân oyun alanları, çocukların gelişim seviyelerini geniş bir oyun yelpazesi sunarak arttırır. Oyun sırasında çocukların yaratıcı, sosyal ve aktif olmalarını sağlar. Bu sebeple, dış mekân oyun alanlarının tasarımı çocuk oyunlarını etkileyen ve öğretmenler, okul yöneticileri ve tasarımcılar tarafından göz önünde bulundurulması gereken önemli bir konudur. Bu nedenle küçük çocuklar için tasarlanan dış mekân oyun alanları ile ilgili bilgilendirici bir rehber olan ve 7C olarak adlandırılan kriterler bulunmaktadır. 7C beş yıl boyunca Vancouver'daki çocuk bakım merkezlerindeki dış mekân oyun alanlarında yapılan bir çalışmaya dayanmaktadır. Çalışmanın sonucu, tasarım ekibinin tasarımcıların yanı sıra erken çocukluk eğitimcileri, ebeveynler ve çocuklar içermesi gerektiğini savunmaktadır. 7C çocuk bakım merkezlerinde 12 dış mekân oyun alanının karşılaştırılmasından ve literatürün gözden geçirilmesinden sonra belirlenen karakter, içerik, bağlantılık, değişim, şans, açıklık ve zorlayıcılık olan yedi ilke sunmaktadır (Herrington ve Lesmeister, 2006). 7C'nin ölçütleri, araştırmacı, tasarımcı ve öğretmen için, oyun alanını değerlendiren bir araç sağlar (Herrington, Lesmeister, Nicholls ve Stefiuk, 2010). Bjorgen (2016), 7C'yi kullanarak farklı dış mekân ortamlarının çocuklara olan sağlayıcılıklarını belirlemek için kullanmış ve ortamın karakter ve içerik kriterlerinin çocuk aktivitesini yönlendirdiğini savunmuştur. Örneğin, doğal çevre hareketler için esneklik sağlar. Öte yandan, sabit oyun alanı ekipmanı hareketler için sınırlar oluşturur ve çocuklar için sabit ve sıkıcı hareketlere

neden olur. Doğal ortam, zorlayıcılık kriteri ile incelendiğinde, öğretmen ve yönetimin rehberliği ile fiziksel keşif ve bağımsız hareketler için bir ortam sağlanır.

Sağlayıcılık Teorisi

Çevre, insanları farklı hareket ve davranışları seçmeleri için yönlendirebilir, böylece oyun alanı tasarımı çocukların oyun seçeneklerini etkiler. James Gibson, kişinin ve çevrenin bir parçası olduğunu ve insanların çevrelerini kullandıklarını belirtmiştir. Gibson insanların kendi iyiliği için inşa ettiği yollar, nesneler, mobilyalar, malzemeler ve ekipmanlar ve özellikle bunların oluşturulduğu süreçlerle ilgilenmiştir. Organizmanın hareket ve aktivitelerini kendi ortamlarında inceleyerek "sağlayıcılık" adında bir kavramı literatüre kazandırmıştır (Lerstrup & Konijnendijk van den Bosch, 2017). 1977 yılında ise James Gibson çevresel etkiyi 'sağlayıcılık' olarak açıkladığı Sağlayıcılık (Affordance) Teorisini oluşturmuştur. Gibson'a göre, çevrenin sağlayıcılığı hayvan için ne sunduğunu ve neler önerdiğini gösterir. Bu seçenekler hayvan için iyi veya kötü olabilir (Jones, 2003). Sağlayıcılar, kaliteyle ilgisi olmayan, insanların nesnelere veya çevreye baktıklarında algıladıkları şeydir (Dotov, Nie ve Wit, 2012). Üstelik, kullanıcı bundan habersiz olsa bile, ürün hala bu sağlayıcılığı devam ettirir. Bu nedenle, tasarımcı, ürünün ve kullanıcının sağlayıcılığını dikkate almalıdır (Obilade, 2015). Örneğin, düz yüzeyler yürünebilirliği, çeşitli nesnelerin taşınmasını, fırlatılmasını ve kavramasını sağlar (Kernan, 2010). Sağlayıcılık Teorisi, çevrenin algılanmasının hem algılanan hem de algılayıcısına bağlı olduğunu savunur. Bu nedenle, sağlayıcılık her ikisi de göz önüne alınarak incelenmelidir (Kernan, 2010). Heft'e göre, tasarımcılar ve şehir planlamacıları planlama sürecinde sağlayıcılığı kullanabilirler (Lerstrup & Konijnendijk van den Bosch, 2017). Heft, farklı türden aktiviteleri fonksiyonel özellikleri ve sağlayıcılıkları bakımından gruplandırmıştır. Ek olarak, çevresel özellikleri aktiviteleri ifade etmek için tanımlamış ve buna Fonksiyonel Taksonomi adını vermiştir. Fonksiyonel Taksonomi temel olarak çocuk ortamına ve davranışlarına odaklanır (Lerstrup & Konijnendijk van den Bosch, 2017). Örneğin, tırmanma özelliği olan alanlar, alana başka açılardan bakmayı, bir alandan başka alana geçmeyi ve hakimiyet gerektiren hareketler yapmayı sağlar. Sığınakların sağlayıcılığı özel alan ve mikro-klima alanlardır. Heft'in Fonksiyonel Taksonomisi sayesinde, çocukların çevresi ve çocuk ortamındaki oyun ve davranışları anlamlı bir

şekilde incelenebilir. Kernan (2010), insanların sağlayıcılığı göz ardı etmesi durumunda hareket etme ve araştırma motivasyonunun azaldığını iddia etmektedir. Bu anlayışla, araştırmacılar çocukların ortamlarını ve eylemlerini araştırmalıdır.

Araştırmanın Yöntemi

Bu nitel çalışma, okul öncesi çocukların tercih ettikleri oyun tiplerinin okul öncesi dış mekân oyun ortamlarının tasarımlarının etkisi ile ilgili araştırmayı amaçlamaktadır. Niteliksel araştırma metodolojisi araştırmacılara, verilerin gerçekçi ve bütüncül bir analizini sağlayarak deneyim ve bakış açısı kazanmalarını sağlar (Bogdan ve Biklen, 1997). Okul öncesi oyun alanlarının çocukların oyun tercihleri üzerindeki etkilerini araştırmak için Oyun Alanının Fiziksel Elemanları ve Çevresel Karakterleri Puanlama Ölçeği kullanılmıştır. Ayrıca, Parten / Piaget Oyun Formu ile çocukların oyunları gözlemlenirken davranışsal haritalama yöntemi kullanılmıştır. Bu yöntem, insanların davranışlarını ve hareketlerini belirli bir alanda kaydetmeyi amaçlamaktadır. Davranışsal haritalar, insanların neler yaptığını, nerede olduklarını ve davranışlarının bölgede nasıl bulunduğunu gösterir.

Davranışsal haritalama yöntemi sayesinde araştırmacı, davranış ile çevre arasındaki ilişkiyi tanımlar ve böylece tasarım sürecinden önceki varsayımların gerçekleştirilip gerçekleştirilmediğine bakabilir (Ng, 2016). Cosco, Moore ve Islam (2010) 'a göre davranışsal haritalama, davranış belirleme ve sağlayıcılık kavramına dayanan bir yöntemdir. Ortam insanları, fiziksel bileşenleri ve davranışları içerir. Davranışsal haritalama, belirli konumlara, fiziksel çevre özelliklerine, kullanıcı tiplerine ve zamanın ilerleyişine sahip davranışlar arasında bağlantı kurmayı sağlar. Moore ve Cosco'ya (2010) göre, davranışsal haritalama yöntemi davranışsal gözlem için bazı avantajlar sağlar, bu nedenle davranış bağlamlarını inceleyen çalışmalar için önemli bir tekniktir. Her şeyden önce, insanlar ne yaptıkları konusunda toplum tarafından kabul görme arzularından dolayı dürüst olamazlar. Başka bir önemli faktör, insan hafızası her zaman güvenilir olmayabilmesidir. İnsanlar yaptıklarını ya da rutin faaliyetlerinde yapmadıklarını unutabilirler. Ayrıca, insanlar kendi faaliyetlerinin ve davranışlarının farkında olmayabilirler. Bu yöntem, gözlem yöntemini kullanarak bu sorunları ortadan kaldırmak için yardımcı olur. Özellikle küçük çocuklarla çalışırken

davranışsal haritalama etkili bir yöntemdir. Çocuklar için kendi duygularını, düşüncelerini ifade etmek ve davranışlarını anlamak zor olabilir. Bu nedenle, bu çalışma için çocuk oyun tiplerini dış mekân oyun alanlarında incelemek amacıyla davranışsal haritalama yöntemi seçilmiştir. Gözlem sürecinde, katılımcı olmayan veya makine gözlemcisi (video kayıt-fotoğraf çekimi) kullanılabilir ve bu çalışma için katılımcı olmayan gözlem yöntemi ve fotoğraf çekimi kullanılmıştır. Katılımcı olmayan gözlemcinin amacı, gözlemlenen davranışa hiçbir etkisi olmamasıdır. Bunun yanı sıra, makine gözlemcisi kayıtlara geri dönüp verileri tekrar analiz etme şansı vermektedir. Araştırmacı gözlem sürecinde çocukları izleyerek not almıştır. Ayrıca, okul öncesi eğitim kurumlarının yönetimleri izin vermediği için dış mekân oyun alanlarında fotoğraflar çekilmiş, notlar alınmış ve oyun türleri bu şekilde kaydedilmiştir.

Araştırmanın Örneklemi

Araştırmanın popülasyonunu Ankara ilindeki özel anaokulları oluşturmaktadır. Gözlem, nitel araştırmalarda en yaygın kullanılan veri toplama yöntemlerinden biridir. Ancak hem zaman ve maliyet hem de veri analizi açısından büyük bir örneklem grubuyla çalışmak mümkün değildir. Nitel araştırma için örneklem büyüklüğü genellikle 1 ila 20 arasında seçilir (Fraenkel, Wallen & Hyun, 2015). Bu çalışmada, oyun alanlarının çevresel ve yapısal unsurları ve tasarım bileşenleri açısından birbirinden farklı olması gerekmektedir. Amaçlı örneklem yönteminde araştırmacılar, araştırma konusuyla ilgili önceki bilgilerini bir örneklem seçmek için kullanırlar. Araştırmacı, hangi verinin gerekli verileri sağlayacağına karar verir (Fraenkel, Wallen ve Hyun, 2015). Bu nedenle, Ankara'daki 6 anaokulu, açık hava oyun alanlarına ve tasarım özelliklerine göre seçilmiştir. Örneğin, bazı oyun alanları kum, ağaç gibi doğal unsurlara sahipken bazıları yapılandırılmış oyun ekipmanlarına ve materyallere sahiptir. Buna ek olarak, tüm oyun alanları içinde, dış mekân oyun alanlarında oynanan oyunları belirlemek için 60-72 aylık yaklaşık 102 çocuk gözlemlenmiştir. Gözlem süreci yaklaşık bir buçuk ay sürmüştür ve Eylül-Ekim aylarında tamamlanmıştır. Gözlem sürecinde çocuklar alanda serbestçe oynamışlar ve herhangi bir planlanmış aktivite yer verilmemiştir.

Veri Toplama Araçları ve Süreci

Oyun Alanının Fiziksel Elemanları ve Çevresel Karakterleri Puanlama Ölçeği

Bu araştırmada, Wooley and Lowe (2012) tarafından oluşturulan Oyun Alanının Fiziksel Elemanları ve Çevresel Karakterleri Puanlama Ölçeği kullanım izni alınarak oyun alanlarının değerlendirilmesi amacıyla kullanılmıştır. Ayrıca, ölçeğin Türkçe bağlamına uygulanabilirliği dört uzman görüşü ile sağlanmıştır. Görüşleri alınan uzmanlardan ikisi okul öncesi eğitimi ve diğer ikisi şehir bölge planlama alanlarında çalışmaktadır. Uzman görüşünden sonra, ölçeğin 5 maddesi önerilerine göre revize edilmiştir. Puanlama sürecinde araştırmacı okul öncesi eğitim kurumlarına birer birer gitmiş ve her bir dış mekân oyun alanını ölçeğe göre puanlamıştır. Bu süreçte çocuklar alan içinde bulunmamış ve aynı zamanda bölgenin fotoğrafları alınmıştır. Başka bir gözlemci de aynı süreç içerisinde alanları puanlamıştır. Bu işlemden sonra alanların puanlaması okul öncesi eğitim alanından bir araştırmacı ile kontrol edilmiştir. Araştırmanın sonunda, oyun alanlarının özellikleri ve oyun türleri arasındaki ilişki belirlenmiştir.

Parten / Piaget Oyun Gözlem Formu

İkinci veri toplama aracı, dış mekân oyun süresinde çocuk oyun türlerini belirlemek için Parten / Piaget Play Oyun Gözlem Formudur (Johnson, Christie & Wardle, 2005). Çalışma için bu gözlem formunun uygulanabilirliği konusunda okul öncesi eğitimi bölümünden iki uzmana danışılmıştır. Bu form, katılımcı olmayan gözlem yöntemi yardımıyla kullanılmıştır. Bu gözlem rolünde, araştırmacı çocukların oyunlarını ve hareketlerini gözlemlemiş ancak dahil olmamıştır. Bu formu kullanılması amacıyla her bir oyun alanının haritası çizilmiş ve her bir alan Merkez A, Merkez B ve Merkez C gibi kendi içinde merkezlere ayrılmıştır. Örneğin, Merkez A, salıncaklar, kaydırak vb. gibi fonksiyonel ekipmanların bulunduğu yer olarak belirlenmiştir. Kum ve su oyun alanının kaldığı yer Merkez B olarak adlandırılmıştır. Son olarak Merkez C, çimen, çalı veya kaya gibi doğal elemanlara sahip bir alan olarak değerlendirilmiştir. Bu aşamadan sonra, her oyun alanı, yaklaşık 1 saat süren dış mekân oyun süresi boyunca gözlemlenmiştir. Johnson, Christie ve Yawkey (1999) 'a göre, 15 saniyelik gözlem süresi, hangi tür bir oyunun meydana geldiğini belirlemek için yeterlidir. Bu nedenle

alanların içinde ayrılmış olan her merkez, saat yönünde (merkezler arasında soldan sağa doğru) 15 saniye boyunca gözlemlenmiş ve o merkez o an görülen oyun türü not alınmıştır. Alandaki bütün merkezlerin gözlemlenmesi 1 gözlem turu olarak adlandırılmıştır ve her alanda dış mekân oyun zamanı süresince 3 gözlem turu gerçekleştirilmiştir. Her okul öncesi dış mekân oyun alanı için 3 farklı gün gözlem yapılmış, böylece gözlemin güvenilirliğinin arttırılması hedeflenmiştir.

Pilot Çalışma

Veri toplama işlemine başlamadan önce, üç farklı okul öncesi dış mekân oyun alanı ile bir pilot çalışma yapılmıştır. Pilot uygulama iyi bir çalışma oluşturmak için kullanılacak ölçekleri test etmeyi sağlaması açısından önemli bir unsurdur. Bu sayede, ölçeklerin uygulanması sırasında ortaya çıkabilecek sorunlar ve ölçeklerde değiştirilmesi gereken hususlar önceden belirlenebilir. Ek olarak, pilot uygulama, bir ölçeğin uygulanmasının pratik ve kolay yolunu belirler (Teijlingen ve ark., 2001). Bu nedenle bu çalışma için yaz döneminde pilot çalışma uygulanmış, ölçekler ve süreçler önceden deneyimlenmiştir. Pilot çalışmanın tamamlanması 3 hafta sürmüştür. Pilot çalışmadan sonra, pratik ve kolay uygulama sağlamak için gözlem formu düzenlenmiştir. Ayrıca, çocukların oyunlarındaki değişimlerin gözlemlenebilmesi için alan içinde her gözlem turunun 10'ar dakikalık periyotlarla yapılması kararlaştırılmıştır.

Verilerin Analizi

Veri toplama sürecinin sonunda araştırmacı veriyi analiz etmek için kodlama yöntemini kullanmıştır. Araçlar, gözlem kayıtları ve fotoğraflar ile toplanan tüm veriler kodlarla birlikte sınıflandırmıştır. Ayrıca okul öncesi eğitimi alanından bir uzman, verileri inceleyerek kodlama yapmış ve bu kodlar bulgulardaki benzerlik ve farklılıkları belirlemek için kullanılmıştır. Bu sayede çalışmanın güvenilirliği sağlanmıştır. Araştırmanın sonunda araştırmacı, okul öncesi oyun alanlarının değerlendirilme verilerini ve çocukların oyun tercihleri ile karşılaştırmış ve bulguları anlamlı bir ilişki içinde birleştirmiştir.

BULGULAR

Çalışmanın sonucunda, farklı tasarıma sahip dış mekân oyun alanlarının oyun türlerini ve çocukların tercih ettikleri oyun materyallerini etkilediği ortaya çıkmıştır. Çalışmada yer alan dış mekân oyun alanı 1'in doğal elemanları ya da oyun malzemeleri olmadığından bu alan geleneksel oyun alanı olarak adlandırılmıştır. Bu alanda, fonksiyonel ve tek başına oyun en çok tercih edilen oyun türleri olarak gözlemlenmiştir. İkinci oyun alanında bulunan gemi şeklinde modüler ekipman çocukları dramatik ya da fonksiyonel oyunları grup halinde oynamaya yönlendirmiştir. Dış mekân oyun alanı 3, geleneksel oyun alanı tasarımına sahip bir diğer alandır. Bu alanda, dramatik ve fonksiyonel oyunlar çoğunlukla gözlenen oyun türleri olmuştur. Ayrıca, alandaki bir ekipmanın kamyon görünümünde olduğu ve böylelikle bir temaya sahip olduğu görülmüştür. Bu durum çocukların oyun tercihlerini etkileyerek onları dramatik oyuna yönlendirmiştir.

Bu üç alandan farklı olarak, Dış mekân oyun alanı 4'ün ağaç ve bazı doğal elemanlara sahip olduğu gözlemlenmiştir. Bu tasarım özelliği, çocukların hem yapı-inşa hem tırmanma hem de sınıflandırılmamış oyunları tercih etmelerine katkı sağlamıştır. Bu farklı oyun fırsatları olmasına rağmen, sahip olunan sınırlı açık alan, doğal unsurlar ve oyun materyalleri nedeniyle çoğunlukla fonksiyonel oyun gözlemlenmiştir. Son iki dış mekân oyun alanı (alan 5 ve 6), Oyun Alanının Fiziksel Elemanları ve Çevresel Karakterleri Puanlama Ölçeğinden daha yüksek puan alan dış mekân oyun alanları olmuştur. Bu iki oyun alanında çocukların her türlü oyun türünü oynadıkları ve alan içindeki farklı merkezleri kullandıkları görülmüştür.

Ayrıca, merkezler her alandaki ekipman ve materyallere göre tanımlanmış ve bu merkezler çocuklara farklı oyun türleri için bir şans vermiştir. Her modüler ekipman, salıncak, tahterevalli veya zıpzıp, fonksiyonel oyun için bir yer yaratmıştır. Öte yandan, doğal unsurlara sahip merkezlerde çocuklar yapı-inşa oyun oynamayı tercih ettikleri gözlenmiştir. Ek olarak, alan içinde bulunan açık alana sahip merkezlerde kurallı oyunlar, dramatik oyunlar, yapı-inşa oyunları ve sınıflandırılmamış oyunlar gibi farklı türdeki oyunlar belirlenmiştir.

TARTIŞMA

Araştırmanın sonuçları, öğretmenin dış mekân oyunlarına karşı tutumlarının önemini ortaya koymuştur. Literatürdeki araştırma sonuçlarına benzer şekilde mevcut çalışmadaki öğretmenler hava koşullarının dış mekân oyununa engel olabileceğini belirtmiştir (Alat, Gümüş ve Cavalı, 2012; McClinic & Petty, 2015). Öğretmenler özellikle hava yağmurlu olduğunda, çocukların hasta olabileceğini vurgulamışlardır. Buna ek olarak, benzer çalışma sonuçları ile tutarlı olarak, öğretmenler açık hava oyunlarında gözlemci olmayı tercih etmişler ve çocukların oyunlarına katılmak istemediklerini ifade etmişlerdir (Alat, Gümüş & Cavalı, 2012; McClinic & Petty, 2015). Dahası, öğretmenler çocuk oyunlarını oyun alanındaki materyallerle zenginleştirmek için çok az girişimde bulunduklarını ifade etmişlerdir. Sadece bir öğretmen bir gözlem gününde dışarıya farklı materyaller getirmiş ve çocuklar farklı oyun türlerine katılma şansına sahip olmuşlardır.

Çocukların gelişim seviyelerini ve ilgilerini göz önünde bulunduracak şekilde tasarlanmış oyun alanları, oyun alanlarındaki farklı problemleri çözmeye çalışırken çocukların sınırlarını ve becerilerini test etmeleri için çeşitli oyun fırsatları sağlayacaktır (DeBord, Hestenes, Moore, Cosco, & McGinnis, 2002). Gibson'a göre, çevremizdeki her şey insanları belirli davranışlara veya hareketlere yönlendirebilir (Lerstrup & Konijnendijk van den Bosch). Bu bağlamda oyun alanları, çocukları belirli oyun türlerine yönlendirebilir ve iyi tasarlanmış bir oyun alanı, çocuklar için daha karmaşık bir oyun ortamı sağlar. Bu çalışmadaki bulgular da oyun alanlarının tasarım özelliklerinin çocukların oyun tercihlerini ve dış mekân oyun süresinde oynadıkları oyun türlerini doğrudan etkilediğini göstermiştir.

Maxwell, Mitchell, ve Evans (2008), çalışmalarında alanlarda bulunan sınırları belirlenmiş ve alan içindeki diğer bölümlerle iletişimi sağlayan bölgelerin çocuklara dramatik oyun için fırsat sunduğunu belirtmişlerdir. Drown ve Christensen (2014), benzer olarak çevrelenmiş, doğal ya da fabrika üretimi materyallerin çocukları dramatik oyuna yönlendirdiğini savunmaktadır. Bu çalışmalara benzer olarak, bu

çalışmada yapılan gözlemlerde 4 dış mekân oyun alanında dramatik oyun gözlemlenmiştir. Bu alanlar ya çocuklara gemi ya da kamyon gibi temaları olan ekipmanların belirli sınırlı bölge yaratarak çocukların oyun kurgulamasına katkı sağlayan ya da oyun alanında doğal elemanları bulunan oyun alanlarıdır. Maxwell, Mitchell, and Evans (2008), ayrıca artık materyallerin çocukları yapı-inşa oyunlarına yönlendirdiği belirtmektedir. Artık materyaller yapılandırılmamış materyaller olarak değerlendirilir ve çocukların hayal gücü ile birleşerek farklı şekillerde kullanılabilir. Bu yönlerden doğal elemanlar da artık materyallerle benzerlik göstererek çocukları yapı-inşa oyunlarına yönlendirebilir. Bu çalışmada yer alan dış mekân oyun alanı 4,5, ve 6'nın sonuçlarına bakıldığında bu durumun gözlemlendiği görülmektedir.

Bunlara ek olarak, çocuklar genellikle çevrelerindeki çevresel sağlayıcıları algılarlar ve ekipmanları ve malzemeleri, oynanabilir, çalıştırılabilir, atlanabilir veya tırmanılabilir olarak sınıflandırırlar (Cosco, 2006). Böylelikle çocuklar çevresel etkinliklerine göre faaliyetler düzenlemeye başlar ve çevrelerinden aldıkları bu dış bilgi ile ilgili olarak hareket ederler (Cosco, 2006). Bunun ışığında yeşil alanlara sahip olmak, birbirleriyle iletişim kurabilecekleri ve çeşitli aktif oyunlar oynayabilecekleri alanlar olarak algılanabilir. Dyment, Bell ve Lucas (2009), yeşil alanlarda keşfetme, tırmanma veya sürünme gibi fiziksel aktivitelerin daha sık görüldüğünü ortaya koymuştur. Öte yandan, bu çalışmada fabrika üretimi olan yapılandırılmış oyun ekipmanlarında tekrarlı ve motor becerilerin kullanıldığı fonksiyonel aktivitelere daha sık rastlanmıştır. Benzer şekilde, açık alana sahip oyun alanında (6) çimenli bir alana sahip olan çocukların, atlama ya da hayvan taklidi gibi çevrenin sağlayıcılığına göre hareketler yaptığı gözlenmiştir. Ancak çocuklar, oyun ekipmanlarının üretildiği merkezlerde daha işlevsel ve motor oyunlar oynamayı tercih ettikleri görülmüştür.

Bunların yanı sıra, fabrika üretimi ve doğal materyallerin ikisini de içeren alanlar çocuklara farklı oyun fırsatları da sunar (Zamani, 2017). Doğal unsurlar yapı-inşa oyun fırsatları sunarken, fabrika üretimi olanlar çeşitli loko-motor hareketler ve denge aktiviteleriyle birlikte fiziksel olarak zorlu oyun fırsatları sunar. Bu çalışmada çocuklar, kaydıraklar, salıncaklar gibi modüler ekipmana sahip merkezlerde fonksiyonel oyun oynamayı tercih etmişlerdir. Ayrıca, kum, toprak, yaprak ve küçük

çalılar gibi doğal unsurlara sahip merkezlerde yapı-inşa oyunları oynandığı gözlenmiştir.

Çalışma sürecinde tespit edilen oyun türlerinin dışında oynamak için bir ekipman veya malzeme bulamayan veya karar veremeyen çocukların etrafa bakınmayı ya da oturmayı tercih ettiği gözlenmiştir. Bunun sebebi, çocuk sayısıyla orantılı olmayan ekipman sayısı, ekipman ve materyal seçiminde tüm çocukların olası tercihlerini göz önünde bulundurmamak ve sadece çocukların o sırada oynamak istememesi olabilir. Ayrıca, çocukların mizaç özellikleri ve akran ilişkileri de bu anlamda bir faktör olabilir. Aynı zamanda bu çalışmada farklı olarak dış mekân oyun alanlarındaki bazı merkezlerde sınıflandırılmamış oyunların gözlemlenmiştir. Örneğin alan içerisinde ağaçlar varsa, çocukların ağaçlara tırmanmaya çalıştıkları gözlemlenmiştir. Ayrıca, çam kozalakları veya böcekler gibi doğal unsurlara sahip olan dış mekân oyun alanlarında, çocukların keşfetme ya da gözlem yapmak gibi faaliyetlere yöneldikleri belirlenmiştir.

Sınırlılıklar ve Öneriler

Gelecekte yapılacak olan çalışmalar için, daha fazla sayıda ve farklı tasarımlarda okul öncesi dış mekân oyun alanları incelenebilir. Ülkenin farklı bölgelerinde yapılan araştırmalar, farklı iklim koşullarını ve çocukların oyun tercihleri üzerindeki etkisini gösterme açısından yardımcı olabilir. Araştırma, daha geniş bir dönemde gerçekleşirse, daha fazla veri toplanabilir ve bu sınırlama önlenebilir. Ek olarak, gelecekteki çalışma için daha fazla sayıda çocukla katılımcı sayısı arttırılarak daha kapsamlı ver elde edilebilir. Bunlara ek olarak, çocukların oynayacağı oyun türlerini yönlendirmek veya değiştirmek için çocukların dış mekân oyunlarının kritik bileşenlerden birisi olan öğretmen bakış açısına ve öğretmen davranışlarına farklı çalışmalar yardımıyla odaklanılabilir. Dahası, öğretmenlerin ve okul yöneticilerinin, genellikle çocukların hastalanmasını önlemek için iyi hava koşullarında dış mekân oyunları düzenlemeyi tercih ettikleri görülmüştür. Bununla birlikte, çocuklar dış oyun ortamlarında farklı hava koşullarında farklı oyun türlerini tercih edebilirler. Hava koşulları ile ilgili her türlü farklılığı görmek açısından çalışma sırasında farklı hava koşullarında veri toplanması önemli olacaktır.

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TEZİN ADI / TITLE OF THE THESIS (**İngilizce** / English) : AN INVESTIGATION OF PRESCHOOLER'S PLAY PREFERENCES REGARDING THE DESIGN OF OUTDOOR PLAY AREAS / OKUL ÖNCESİ DÖNEM ÇOCUKLARININ OYUN TERCİHLERİNİN DIŞ MEKÂN OYUN ALANI TASARIMLARI AÇISINDAN İNCELENMESİ

TEZİN TÜRÜ / DEGREE**:** **Yüksek Lisans** / Master ■ **Doktora** / PhD ☐

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