# CHILDREN'S PERCEPTIONS OF NEIGHBORHOOD QUALITIES: A CASE IN ÇORUM (TURKEY)

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#### ABSTRACT

## CHILDREN'S PERCEPTIONS OF NEIGHBORHOOD QUALITIES: A CASE IN ÇORUM (TURKEY)

Children's usage of open spaces is an important research field since it has several consequences on the healthy development of children. However, today most of the urban areas and particularly streets are designed for the use and needs of adults and cars. Moreover, there is an increasing shift in children's life from outdoor to indoor spaces resulted by the changes in the physical environment and parental safety perception.

This study examines a group of 9-10 years old children's neighborhood perception in two neighborhoods in the central city of Çorum. It deploys an online parental survey, our site observations of physical characteristics of these neighborhoods, and a focus group interview with 22 children. This thesis aims to grasp the physical and social factors of the neighborhood affecting children's usage of their immediate surroundings to improve children's active involvement in urban areas. Thus, strategies and recommendations are developed at the neighborhood level with the data extracted from field research to create child-friendly urban environments.

According to the study findings, parental licenses are affected by social factors more than physical factors of the neighborhood. Besides, fear about strangers and vehicle traffic are the factors that cause parental restrictions at most. To create a child-friendly city, the presence of other children in the neighborhood, suitable play equipment for different age groups, places for individual and group activities, and mix land uses in the neighborhood are the common factors that emerged from the children's responses. Although parents and children give similar responses to the factors that negatively affect their perceptions, such as fear of strangers and inadequacy of green spaces, they have different expectations and concerns about their neighborhood. Therefore, the data obtained in this study highlight the importance of examining the different needs of children and parents at the neighborhood level in order to create child-friendly cities.

## ÖZET

## MAHALLE ÖZELLİKLERİNE DAİR ÇOCUKLARIN ALGILARI: BİR ÇORUM (TÜRKİYE) ÖRNEĞİ

Çocukların açık alan kullanımı, çocukların sağlıklı gelişimleri üzerinde çeşitli sonuçlar doğurması nedeniyle önemli bir araştırma alanıdır. Ancak günümüzde kentsel alanların çoğu ve özellikle sokaklar yetişkinlerin ve arabaların kullanım ve ihtiyaçlarına göre tasarlanmaktadır. Ayrıca, fiziksel çevredeki ve ebeveyn güvenlik algısındaki değişikliklerin sonucu olarak çocukların yaşamında dış mekanlardan iç mekanlara doğru artan bir kayma söz konusudur.

Çalışma, Çorum merkez ilçesinde bulunan iki mahallede yaşayan 9-10 yaş grubu çocukların mahalle algısını incelemektedir. Çevrimiçi ebeveyn anketi, bu mahallelerin fiziksel özelliklerine ilişkin saha gözlemleri ve 22 çocukla gerçekleştirilen odak grup görüşmesini uygulayarak araştırır. Bu tez, çocukların kentsel alanlara aktif katılımını geliştirmek için çocukların yakın çevrelerini kullanmalarını etkileyen fiziksel ve sosyal faktörleri kavramayı amaçlamaktadır. Bu sayede, saha araştırmalarından elde edilen verilerle mahalle düzeyinde çocuk dostu kentsel ortamlar oluşturmak için stratejiler ve öneriler geliştirilmektedir.

Araştırmada elde edilen verilere göre ebeveyn izinleri, mahallenin fiziksel faktörlerinden daha çok sosyal faktörlerinden etkilenmektedir. Ayrıca yabancı korkusu ve araç trafiği en fazla ebeveyn kısıtlamasına neden olan faktörlerdir. Çocuklara göre, çocuk dostu bir şehir yaratmak için gerekli olan faktörler, mahallede diğer çocukların varlığı, farklı yaş gruplarına uygun oyun ekipmanları, bireysel ve grup etkinlikleri için alanlar ve mahalledeki karma arazi kullanımları olarak belirtilmiştir. Yabancılardan korkma, yeşil alanların yetersizliği gibi algılarını olumsuz etkileyen faktörlere karşı ebeveynler ve çocuklar benzer tepkiler verseler de mahalleleri ile ilgili beklenti ve kaygıları farklılık göstermektedir. Dolayısıyla bu çalışmada elde edilen veriler, çocuk dostu şehirler oluşturmak için çocukların ve ebeveynlerin farklı ihtiyaçlarının mahalle düzeyinde incelenmesinin önemini vurgulamaktadır.

This thesis is dedicated to Ula Kerem, Ali El Hemdan, And to all children who have been forced to leave their land. "Day after day, children are denied the right to be children. The world treats rich kids as if they were money, teaching them to act the way money acts. The world treats poor kids as if they were garbage, to turn them into garbage. And those in the middle, neither rich nor poor, are chained to televisions and trained to live the life of prisoners.

The few children who manage to be children must have a lot of magic and a lot of luck." Eduardo Galeano, Upside Down

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## **CHAPTER 1**

#### INTRODUCTION

#### **1.1. Problem Definition**

This study examines the factors that affect children's usage and perception of open spaces in their neighborhoods. It investigates how the social and physical characteristics of the neighborhood affect children's perceptions of the neighborhood they live in, their use of public and private open spaces in their neighborhoods, and the effects of parents on children's usage of these spaces. Additionally, this thesis examines the effect of individual characteristics of children on the perception and usage of the outdoor environment. In this sense, the research investigates the experiences of children in their neighborhood, what kinds of activities and uses children can perform there and the effect of different neighborhood characteristics on children's perception; besides, parents' safety mechanisms and the relationship between them. According to UNICEF's report (2018), 70% of the world's children will be living in urban areas by 2050. But unfortunately, with the changing demographic structure of the cities, current planning and design interventions are not sufficient to counterbalance the problems and needs that children and families face in cities today. By taking these issues into its agenda, CFC is an approach that focuses on producing policies, interventions, and place-based solutions for children living in urban areas. As a result of the research conducted within the scope of this study, it is aimed to develop intervention areas to create child-friendly neighborhoods.

Increasing usage of mobile technologies and shrinking open public spaces have affected children most (Pooley, Turnbull, and Adams 2005). These changes began to affect children's physical, social, and cognitive well-being by decreasing the outdoor use of children. The narrowing of children's spaces in the public space and the decreasing mobility of children in urban space have affected the health of children negatively and led to obesity problems among children (Björklid and Nordström 2007). On the one hand, this decrease in the use of urban space of children emerges as a result of the changing safety perception of parents which is affected by socio-cultural and political norms as well as the change in the physical environment (Nansen et al. 2015). On the other hand, as cities and most of the places are designed and developed for adults and cars, children are faced with exclusion from public spaces and have accessibility problems to urban facilities. Viewing children as a homogeneous group by taking into account only their developmental characteristics and ignoring them in the planning and design process, neglects children's own daily experiences and causes the daily environment of children to be determined by adults. Therefore, giving a voice to children first, about their own experience is not only a mandatory approach but also a rights-based responsibility.

The neighborhood is the first environment in which children interact with the outdoor but still, there is a lack of literature at the neighborhood-level since it is a fluid, not a straightforward concept (Cope 2008). The neighborhood is an important place for researching children's local experiences and immediate surroundings. As a place where children spend most of their outdoor time, the neighborhood provides a space for discovery, interaction, and play. Engaging children in the neighborhood can provide several benefits not only to the children but to the whole city (Carroll et al. 2015). When we look at children's areas in the cities, they are like pieces separated from each other whose connection is not considered according to children's desires and needs (Giraldi et al. 2017). As Zeiher (2003) stated children's space is "scattered like an island on the map of the city" (p.66). Therefore, to develop a more holistic approach to urban design, children's neighborhood experience should be expanded to include children's everyday spaces, starting from the doorway.

Children's usage of open spaces is important for their cognitive, social/emotional, and motor development. To research children's perceptions and experiences, creative methods have begun to develop and be used in childhood studies. Child-centered methods are a powerful technique for understanding children's own daily experiences through creative techniques which are only based on verbal or written representations. Although much of the research in the field of child geography has been carried out with parents, studies conducted in recent years take the child as a subject and include them in the research and design process through a mixed-method approach. There is a methodological shift in childhood studies from a mostly quantitative approach to more creative mixedmethod designs (Christensen and Cortés-Morales 2015). By following current approaches, I used a mixed-method approach in this thesis to examine children's perception of open public spaces at the neighborhood level.

In the field of urban design, child-friendly city initiatives with a rights-based approach emerged to develop design interventions for the needs of children and involve them in urban processes. The child-friendly city (CFC) initiative and concept which is firstly introduced by UNICEF in 1996 to improve the life quality of children and youth in urban environment aim to open up a space where children and young people can participate in decision-making mechanisms in the city and share their experiences (Kingston et al. 2007). Later, child-friendly city initiatives spread to many cities, which began to work in cooperation with UNICEF. In Turkey, child-friendly city initiatives were established in 12 different cities between 2006 and 2010. These initiatives collaborated with municipalities to work on child-friendly city policies and programs in order to create child-friendly places (Gokmen and Taşçı 2016).

The child-friendly city is characterized as flexible, green, accessible, including mixed-used, enabling socialization, having clear identities, and supporting participation (Karsten & Vliet, 2006). CFC initiatives from all over the world try to ensure children's and youths' engagement and interaction with local communities and local affordances by providing well-designed neighborhoods to activate them physically and socially (Ziaesaeidi and Cushing 2019). Walsh (2006) shows the main problem areas – especially in western societies today - as a result of the current development policies are related to the change of opportunities for children to play such as shrinking public spaces, intensifying urban centers, and changing children's daily lives from outdoor to indoor. She emphasizes that this shift causes significant changes in children's social competence, developmental and cognitive development. In addition, in her article, she points out concrete steps that can be taken for child-friendly cities by offering guidelines to planners, designers and policymakers regarding the different and varied play needs of children of all ages and the size of the spaces required for this. In the last chapter of the book titled "Creating Child-Friendly Cities", Gleeson, Sipe, and Rolley (2006) argue that creating CFC is an all-inclusive task that requires many different specialists and collaboration of diverse communities. It is more like a process in which each step creates its own meaning. They also emphasize the importance of the local level which has compelling effects on the well-being of children, as a starting point for implementation and the involvement of children.

Designing child-friendly cities mean not only designing spaces for children but also creating more livable and vibrant neighborhoods and communities for the entire community (Krishnamurthy, 2019). Krishnamurthy (2019) conducted a broad study to discuss the role of urban design in creating a child-friendly city. With the changing demographic structure of cities, current planning and design interventions are not sufficient to counterbalance the problem and need that children and families face today in cities. She offers a bunch of urban design interventions to improve the daily life of children; for instance, playful street furniture can be added into neighborhoods so parents can observe the children. Additionally, it can serve as a community bonding tool. Playful crossing, playful sidewalk, better and extended usage of schoolyards, and child routes can be generated by keeping children of all ages in mind. Besides, Karsten and Vliet's (2006) study claims that green features, traffic calming interventions, and available play equipment are important factors to see neighborhoods as child-friendly places.

Apart from intervention areas and ideas for creating a child-friendly city, how and where to start remains a crucial question to probe. Some researchers take streets and places nearby children's homes as the starting point to be targeted since it is the most preferred and accessible place for young children (Ghanbari-Azarneir et al. 2015; Karsten and van Vliet 2006; Krishnamurthy 2019). However, Woolcock, Gleeson, and Randolph's (2010) review criticize the CFC studies from Australia because of not including neighborhood and place-based approach in their research.

In general, CFC is an approach that is handled through different categories, themes and it is an approach that sees the inclusion of children in urban life and the development of new planning methods and policies by problematizing the access of children to an ever-shrinking environment. All approaches which try to expand the living spaces of children in cities and seek rights-based pursuits are pioneers of a step towards a child-friendly city.

This thesis aims to gain an in-depth understanding of children's neighborhood experiences using different research methods. however, it also examines the factors that affect parents' perception of safety in order to understand children's usage of neighborhoods. As a result of all these, the thesis identifies urban design interventions that can be implemented at the neighborhood level to create child-friendly cities.

#### **1.2.** Aim of the Study

This study aims to examine the social and physical factors that affect children's perception and usage of their neighborhoods. In this context, research is conducted with both children aged between 9-10 and their parents. In order to create child-friendly urban environments, it is necessary to understand how and in which way children use the space and how space affects children's perception. To examine these factors, the following questions shape the research.

Q1. How do the physical and social environmental factors of the neighborhood affect the children's usage of open spaces?

- o Social Factors of the neighborhood
  - Good relations with the neighbors positively affect the perception of safety.
  - Neighborhood environments that offer different kinds of social possibilities are appreciated by children.
  - The high level of child population in the neighborhood positively affects children's willingness to play outside.
  - The crime rate, bullying adults, unclean streets negatively affect children's outdoor space usage.
- Physical Factors of the neighborhood
  - Open spaces which offer a diverse range of features and opportunities to play is preferred by children.
  - Children spend time in places where play opportunities are suitable for their age.
  - The presence of large roads, vehicular traffic density, lack of traffic sign increases safety concerns.
  - The presence of recreational areas in proximity enhances children's outdoor activity.

- Land use mix increases children's opportunity to develop a relationship with the local community.
- Clean, well-kept streets and parks increase children's contentedness.
- Building typology affects children's allowance to go outside. Children living in apartments with a backyard or houses with a garden are mostly permitted to use outside nearby the home.
- Inadequate neighborhood features like play, sports facilities decline children's usage of the outdoor environment.
- Q2. What are the individual related factors that affect children's neighborhood usage?
  - Individual Characteristics of Children
    - Older children are allowed to move freely in the outdoor environment more compared to younger ones.
    - The ethnicity of the children could affect the safety perception of parents. But the direction of the effect is unclear.
    - Boys are allowed to go outside more compared to girls.
    - Children who have a phone are permitted to go outside alone more.
  - Household Characteristics of Children
    - Low-income parents allow their children to be out more compared to middle-income and high-income parents
    - The education level of the parents is negatively associated with safety perception.
    - Duration of living in the same neighborhood is positively associated with increased parental safety perception.
    - The working status of parents has an influence on children's usage of the outside. Working parents mostly restrict their children to be out.
    - Car ownership negatively affects children's time spent in the neighborhood.
    - Larger household families allow their children to go outside more.

Q3. What kind of urban design improvement can be generated to improve children's use of the outdoor environment?

- Child-friendly road crossing, improvement in traffic speed inside of the neighborhood may increase parental licenses for children's use of open public spaces.
- Public services and facilities can be generated regularly for children in parks.
- With a new arrangement, each park can be designed to provide various affordances to play for children of different ages.
- Public furniture and elements can be regulated in terms of children's height.
- Participant urban art workshops can be settled in the neighborhood for youth and children.

#### 1.3. Methodology

The childhood studies embrace mixed-method approaches to unbury the complexity of children's experiences and perceptions. According to Hemming (2008), combining different methods such as observations, creative child-centered methods, semi-structured interviews can help the researchers to get a complex and deeper understanding of experiences and perceptions of children. Similarly, this research combines different child-centered research methods to capture children's perceptions and experiences of them. Through observation in the neighborhoods as the study sites, online surveys with parents, and focus group interviews with children, the study data is collected. By examining study data, this thesis develops urban design implementations for child-friendly cities.

The site observations were used to gather data about two selected neighborhoods. Through observation, the condition of the parks and streets, mobility and aesthetic features, sense of safety, and land use around the study area are determined. In addition to field observation, data was gathered from the Turkish Statistical Institute to analyze neighborhoods' demographical features.

Research is carried out with selected 22 children and 132 parents of 3<sup>rd</sup> and 4<sup>th</sup> grade children from Bekir Aksoy Primary School and Başöğretmen Atatürk Primary school from Çorum. To conduct this research on site, we gathered an ethical approval obtained from İzmir Institute of Technology (See Appendix C) and then the official permission from the Ministry of National Education (See Appendix D).

Parental license is a determinant factor of children's usage of the outdoor environments. In this research, a survey was completed with a group of parents to understand their perception about the neighborhood, neighborhood's social and cultural characteristics, their children's usage of the outdoor environments, and their licenses or permissions for their children to use outdoor. An online survey including 37 questions was sent to parents of children from Bekir Aksoy Primary School and Başöğretmen Atatürk Primary school. Survey questions consist of three parts. These are:

1. Questions about gender, income, education level.

2. Questions about the physical and social condition of the neighborhood they live in.

3. Questions about their permission for their children's usage of outdoor space and parents' sense of safety.

For understanding children's experiences and perceptions of their neighborhood, two focus group interviews with child-centered creative methods were conducted with 22 children whose parents gave permission for their children to be part of the research. In the first focus group discussion, children were asked questions to understand their general perception of their neighborhood. After that, a one-week trip diary was distributed to children to fill in the following week. Diaries include sections such as the trip destination, travel mode, accompaniment status, emotional status at that place. In the second focus group discussion, the results of the diaries were discussed with the children, and then drawing materials were distributed to children for drawing exercise. Children were asked to draw their dream neighborhood and explain it after they finish. After all, data was gathered, the content analysis method was used to interpret the results.

Crystallization of different techniques can provide information that overlaps and complements each other's but also it can give confronting results. In both cases, using different methods enrich our understanding of the research subject. Therefore, this thesis deploys different research methods which are found suitable for the field of inquiry. In the second part of the 4th chapter, the method and data collection techniques used in the study are examined in more detail.

#### **1.4.** Structure of the Study

This thesis scrutinizes the physical and social factors that affect the dynamic and complex relationship between the child and the neighborhood they live in. To examine this relation, the second chapter firstly defines the developmental characteristics of children and middle childhood groups focused on by this study. After, it discusses the concept of childhood and historical change in the concept according to literature. The next part of the second chapter investigates the neighborhood concept and the importance of the neighborhood environment in childhood development.

The third chapter categorizes the factors which affect children's neighborhood perception and usage. Factors are examined under two categories. The first category is individual related factors. These have two subcategories with child and household related factors. The second category is neighborhood related factors which are examined under social and physical factors of the neighborhood subcategories. All categories are created according to the systematic approach to literature review to guide study findings.

Chapter four covers the research site and the study methods. First of all, the physical and social data and land use analyzes of the two neighborhoods in Çorum are mentioned. Afterward, data collection techniques used with parents and children in the field study are examined in detail.

In the fifth chapter, the study findings are presented. First, the differences in the physical characteristics of the two neighborhoods were shown according to the field observation. Then, the factors that affect the neighborhood perceptions of parents and children are examined. Later, the data on the current neighborhood usage of children are presented according to parents' and children's responses. Afterward, the themes are determined based on the children's drawings and the answers of the parents in order to reveal what child-friendly neighborhoods should contain. Finally, the results are discussed together with the literature.

The conclusion chapter mentions the contribution of the thesis to the literature. The research findings were examined in three parts in terms of the factors affecting the children's perceptions of the neighborhood qualities. First, the factors related to the child and the household, then the social factors of the neighborhood, and finally the physical factors of the neighborhood were presented. Afterward, the necessary steps to be taken are stated to create a child-friendly neighborhood according to the responses of children and parents. Finally, this section is completed by mentioning the limitations of the study and presenting suggestions for future studies.

#### **CHAPTER 2**

#### **CHILDREN AND NEIGHBORHOOD RELATION**

#### 2.1. Children as a Subject in the Research

This chapter discusses definitions of children and childhood and their position in planning and design studies. It defines the developmental characteristics of children with the different categorizations of childhoods. Then, the chapter discusses the historical change in the position of children in society, and childhood studies.

#### **2.1.1. Developmental Characteristics of Children**

There are different categorizations and definitions of what it means to be a child or when childhood finishes and starts. Simpson's (1997) article examines child participation in planning and design while delving into the different perspectives that separate the child from the adult. He criticizes defining anyone under the age of 18 as a child and argues that it is a more accurate approach to define childhood according to the developmental nature of children. Simpson (1997) states:

In other words, children are those who have not yet reached full intellectual or social maturity. The value in such a definition is that it stresses the need to recognize that there are people who need support and guidance if they are to be included in decision-making which affects them. (p.908)

Piaget's (1954) theory on the cognitive development of children asserts that the intelligence of children changes as they grow. He divides childhood into four stages according to their developmental capacity. The first stage is the sensorimotor stage which lasts from birth to the age of two. During this period, children develop cognitive abilities

through their senses. The second stage is the preoperational stage which starts at 2 years and ends at 7 years. Children at this stage develop an understanding of symbolic meaning and representation for interaction with the world. They understand the world around them in a concrete manner, but they do not develop a logical way of thinking. The third stage is the concrete operational stage which includes 7–11-year-old children. This stage is a turning point according to Piaget (1954) as children start to develop logical understanding. Also, children at this stage, recognize differences between their thoughts and others. The last stage is the formal operational stage which starts from the age of 12. At this stage, abstract thinking occurs, and logical understanding evolves.

As mentioned, there are different categorizations of children according to their developmental characteristics and capabilities in the literature. But all these categorizations are based on Piaget's extensive contribution to the child development literature. For instance, Ghanbari-Azarneir et al. (2015) consider childhood in three categories in which from birth to two years, childhood is called early childhood; from two to six years, middle childhood; and the final childhood stage is from six years to twelve years. Chawla (1992) also defines three childhood categories and discusses children's place attachment and usage according to it. These categories are early childhood (birth to 5 years), middle childhood (6-11 years), and adolescence (12-17 years). According to Chawla's study (1992), the middle childhood group is most interested in the neighborhood environment. Therefore, this thesis focuses more on the developmental capacities of children from this age group.

Moore (1986) argues that friendship is important for place experience in middle childhood and claims the existence of a reciprocal relationship between environmental exploration and social relations (Chawla, 1992). Chawla's (1992) review of empirical research with children shows differences in place usage between the three childhood categories. She emphasizes that diverse neighborhood affordances are appreciated by the middle childhood groups, while children prefer places close to home in early childhood while the home and distant attraction places are preferred by adolescents. Furthermore, Chawla (1992) argues:

It is in middle childhood, when self-identity and social reputation require displays of physical strength and dexterity, that the value of the local environment appears to be most directly determined by its opportunities for individual challenge and group play. In the light of this information, middle childhood is the most appropriate age group to research with and about neighborhood usage. However, there are differences in the permission mechanisms for the outdoor usage of children in this group during the transition from primary school to secondary school (Nansen et al., 2015; Weller & Bruegel, 2009; Crawford et al., 2017). To sum up, in order to keep the age range limited, children between the ages of 9-10 were chosen for this study since they have more spatial experience compared to younger ones.

#### **2.1.2.** Changes in the Perceptions about Childhood

Several researchers have studied topics related to children such as children's participation in planning and design, childhood geography, child-led participatory research, but the involvement of children as subjects in the research and design process has only started in the last few decades. Holloway and Valentine (2000), who have done a comprehensive study on the concept of childhood and spatiality, state that the concept of childhood has been domesticated and confined to the home in the last two centuries.

The definition of childhood contains many dualities. While being in need of protection or children as autonomous being is one of the main dualities, in the field of planning and design, being a future citizen or a current citizen constitutes the main debate (Simpson 1997). Meanwhile, the representation of childhood has shaped the practices of designers who make decisions on behalf of children. Therefore, designers who consider children as a homogeneous group, create spaces reinforcing common assumptions about childhood (Smith et al., 2009). For this reason, Holloway and Valentine (2000) draw attention to the spatial equivalents of the concept that the space feeds the discourse and state that we can break this duality by recognizing the subjectivity of the child and by understanding the space in a more permeable way.

Simpson (1997) emphasizes that after the 19<sup>th</sup> century, childhood has been separated from adulthood, and laws are generated to keep children away from public services especially in Western societies. Discussions on the fact that children were not included in the field of social sciences because they were treated as "becoming" instead of "being" have only just begun in the mid-80s (Holloway and Valentine 2000). Holloway

(2014) underlined that while the later discussions on the construction of the child as a biological and social being have gradually been diminishing, approaches to different childhood processes that are not direct have emerged. Malone (2011) discusses the understanding of childhood as a global concept in her article. She explains how children's experiences in different cultural and economic contexts may differ; therefore, the concept of childhood cannot be explained by seeing it as a global but as a fluid, dynamic, shifting concept between local and global. Relevant to this matter, Holloway and Valentine (2000) show a more comprehensive understanding of global/local dichotomies on childhood. According to them, even if both are socially constructed and informed by the symbolic meaning of local place, the global and local are still in interaction, change each other, and bound together.

If we remove childhood from its stereotypes such as "*biological being*", "*socially constructed*", "*global*", "*local*", "*being*", "*becoming*", "*future citizen*" and "*current citizen*", we can see childhood from a rights-based approach which suggests that there is a capable human being who has a say on the issues that concern their own lives. However, it would not be the right approach to place children in research as an abstract group from the outside world, at least not in this research. Holloway (2014) emphasizes that it is important for us to listen to children's opinions about the public spaces from where they are excluded and marginalized. However, like many of us, children do not have all the answers, so other actors who shape their lives and whose lives are shaped by them should be included in the research process. Adopting this approach, in this research, children are considered as subjects and most of the methodological part of the research was shaped by answers given by the children.

#### 2.2. Neighborhood as the Immediate Surrounding of Children

The neighborhood environment is an essential part of children's daily experiences. Therefore, understanding the concept of the neighborhood and its influence on children is crucial to creating child-friendly urban environments which can support the healthy development of children. This section discusses the neighborhood as an immediate surrounding of children in two subsections. First, how the neighborhood is defined by reference to the literature is discussed. Then, why the neighborhood is an important stage in children's daily life is explained.

#### 2.2.1. Definition of the Neighborhood

The neighborhood is a socio-spatial concept that provides an opportunity to interact, establish a relationship, and cope with daily challenges. The neighborhood is the first environment where children interact with the outdoor, learn social, cultural, and physical matters rather than their home (Loebach and Gilliland, 2010). The fact remains that there is a lack of literature at the neighborhood level since it is a fluid, not a straightforward concept (Cope 2008). However, the neighborhood is an important place for researching children's local experiences and immediate surroundings.

Vaiou and Lykogianni (2006) define the neighborhood as a small 'local' community that may share a common past in a surrounded place where a sense of safety and belonging is established in every day, face-to-face interactions. According to them, considering neighborhood as a community, commodity, or consumption niche enable us to grasp different angle of the local-global network. Besides, the approach to the neighborhood as a commodity point to the different roles of the neighborhood as providing local services, social facilities, employment opportunities which influence people's chance to involve in urban life or be excluded from certain areas. Taking a look at the neighborhood as a consumption niche shows how it is a part of the gentrification processes in a global network with its marketable lifestyle for different social groups. Besides, Rasmussen and Smidt (2003) discuss the neighborhood as an abstract concept on the one hand; and as a socio-spatial concept in which people experience, perceive, and learn, on the other hand. Meanwhile, they assume children contain some part of the neighborhood.

Campbell et al.'s (2009) article emphasize that there is a disagreement on the definition of the neighborhood in a wide range of debates among scholars, ranging from what the scale of the neighborhood is to the fact that place-based definitions are not necessary for the age we live in. According to their research, the neighborhood has

physical, social, and psychological dimensions which overlap with each other and has multiple boundaries. They also point out the divergence of subjective definition of the neighborhood in academic studies. Boundaries of the neighborhood may vary among the neighborhoods based on the question asked to the residents or the context and the function. Moreover, contemporary research uses geographical units mostly census tracts to define neighborhood boundaries (Ellen and Turner 1997; Campbell et al. 2009). But it is also found too large to understand face-to-face interaction and social changes over time. Therefore, a combination of subjective and administrative measurements gives a more comprehensive understanding of neighborhood boundaries.

As a difficult concept to grasp, the neighborhood includes different opportunities, restrictions beyond space and time. Therefore, Hayball et al. (2018), preferred to use "local environment" as a spatial concept. Malone (2003) conceptualized the neighborhood as a place where local facilities are provided, and familiarity is developed within everyday life. This research defines the neighborhood as children's immediate surroundings and the places that they are familiar with and with accessible amenities via walking.

#### 2.2.2. The Importance of Neighborhood in Child Development

The changing concepts of both childhood, and neighborhood influence children's physical, social and cognitive well-being. The neighborhood is a basic unit in the development of a child according to Malone's (2006) work. Spencer & Woolley (2000) claim children develop personal identity via place attachment. Krishnamurthy (2019) who scrutinizes the role of urban design to create family-child friendly cities, emphasizes that the scale that studies should address is the local scale where everyday life occurs for children. In other words, the importance of the neighborhood for families with children should be examined to comprehend the indicators of environmental child-friendliness.

As a place where children spend most of their outdoor time, the neighborhood provides a space for discovery, interaction, and play. Engaging children in the neighborhood can provide several benefits not only to the children but to the whole city (Carroll et al. 2015). When we look at children's areas in the cities, they are like pieces

separated from each other whose connection is not considered according to children's desires and needs. As Zeiher (2003) stated children's space is "scattered like an island on the map of the city" (p.66). Therefore, to develop a more holistic approach to urban design, children's neighborhood experience should be expanded to include children's everyday spaces, starting from the doorway.

Neighborhood as a socio-spatial concept offers a range of possibilities but these possibilities are not distributed equally to each neighborhood or do not meet the expectations and needs of every citizen. Interaction with others, engaging in activities, being a part of society has an essential effect on child development (Minh et al. 2017). Chawla (1992) defines children's place attachment as "children are attached to a place when they show happiness at being in it and regret or distress at leaving it, and when they value it not only for the satisfaction of physical needs but for its own intrinsic qualities." (p.64).

Lack of play facilities for different developmental stages of children (Güroğlu and Önder 2016), absence of green spaces (Karsten, 2005; Martin and Wood, 2014), controlling adults (Broberg, Kyttä, and Fagerholm 2013; Weller and Bruegel 2009; Carroll et al. 2015), high volume of vehicular traffic (Carver et al. 2014; Ekawati 2015) have been the common topic of concern in changing geographies of children. All of these factors have affected children's use of outdoor space and the diversity of the activities children are involved in in the outdoor environment has started to decline dramatically (Spencer and Woolley 2000). Reduction of children's usage of open public space leads to a change in children's life from outdoor space to indoor space. This change in children's life is called the "Domestication of childhood" (Zinnecker 2001).

Human-environment interaction research shows people gain knowledge through interaction with different places (Malone 2015). The opportunities that the neighborhood can offer determine people's daily routines, personal health, and social relations. The diversity of the play, sport, nature possibilities like gathering places, flexible play areas, biking roads offered by the immediate environment is important for children in many aspects as they learn about themselves and the world beyond them through interaction with the immediate environment when their experiences of the urban environment are not restricted by their parents (Kyttä et al. 2018).

Cope's (2008) works present great literature and longitudinal study data on the meaning of neighborhood for children. Moreover, he states that the neighborhood has different boundaries and meanings even for people living in the same place. But still,

children are strong geographers. While creating their own meaning of the neighborhood, they are also involved in its reproduction. According to Cope's (2008) study, children understand the neighborhood through narratives and as a socio-spatial concept. On the other hand, Rasmussen and Smidt's (2003) study claims children experience neighborhood in a concrete manner. The combination of these assertions shows all aspects of the neighborhood are perceived, understood, experienced, and embodied in children's daily actions.

#### **CHAPTER 3**

# FACTORS AFFECTING CHILDREN'S USAGE OF THE NEIGHBORHOOD

Children's use of the neighborhood is affected by many factors from general policies, the social condition of the living environment to the individual characteristics of the child. Studies in different disciplines such as planning, education, health, urban design, and psychology have examined these factors on many different scales such as parks, streets, neighborhoods, suburban, and urban. Although the factors affecting children's usage of the immediate environment are multidimensional and complex, they can be framed as the child's characteristics, family structure, social environment, and the opportunities offered by the physical environment. Some recent research shows that the social environment is the most determinant factor of children's healthy development, and usage of the neighborhood; besides, the effects of the physical environment cannot be ignored (Karsten, 2005; Loebach & Gilliland, 2010).

In this section, factors affecting the child's neighborhood usage and parental safety perception are examined in two parts as neighborhood-related factors and individual-related factors. The first part of this section is about individual-related factors which are examined under two headings as household and individual characteristics of the children. The last part is about neighborhood-related factors which are discussed under two headings as the social and physical factors of the neighborhood. Social factors are examined in terms of the child population, neighbor relations, neighbor poverty, and stranger danger. Then, physical factors are examined under the headings of traffic, green areas, aesthetic features, land use, residential density, access to the destination, and recreational facilities.

#### 3.1. Individual-Related Factors

This section provides a literature review on individual-related factors affecting children's neighborhood usage. The first subsection examines the factors related to the child's character in detail. As most of the studies suggest, age is the most important factor determining the spatial use of children. Although some of the studies conducted in different socio-cultural environments claim the contrary, gender and ethnicity of the children are also determinant factors of children's open space usage. The second subsection scrutinizes factors related with household characteristics. Some of the factors that affect parents' perception of safety and permission mechanisms are education and income level of parents. These factors and more are explored in detail below.

#### **3.1.1. Individual Characteristics of Children**

When we talk about children, we do not talk about one homogeneous group. The physical and social abilities and desires of children are changing with age. According to Piaget (1967) 7–11-year-old children are more aware of events and the outside world compared to younger ones. Children's physical and social ability is a determinant factor of their mobility and usage of the urban space. Older children are more mobile in terms of use of the outdoor environment (Larsen, Buliung, and Faulkner 2015). Transaction from primary to secondary school carries importance in children gaining autonomy (Weller and Bruegel 2009; Nansen et al. 2015). Besides, O'Brien et al. (2000) conducted a study in London and their findings show that children in secondary school (13-14 years old) have greater allowance to move in the neighborhood compared to primary school children (aged 10-11). According to Broberg, Kyttä, and Fagerholm (2013), while younger children perceive environmental affordances nearby residential areas, older ones perceive affordances in central and more commercial areas which could be related to allowance to move around. Among the other factors, age is the most determinant factor of children's mobility, usage, and physical activity.

Another determinant factor of children's usage of the neighborhood environment is gender (Esteban-Cornejo et al., 2016; Faulkner et al., 2015; Mitchell et al., 2016). Research shows the percentage of restrictions of girls from public spaces is higher than boys (O'Brien et al. 2000). Similar findings were also reported by Faulkner et al. (2015) who studied the outdoor play of children, finding that boys spend much more time (playing) outside than girls. These results reflect those of Mitchell, Clark, and Gilliland (2016) who also found that boys spend more time outside, reach wider neighborhood areas, and engage in more physical activity compared to girls. Likewise, Esteban-Cornejo et al.'s (2016) study revealed that safety-related concerns on stranger danger are higher for parents of girls who restrict their mobility as a result. Lopes, Cordovil, and Neto's (2018) study results show that travel accompaniment and mode to actualized affordances change according to the gender of the child: Boys are allowed to move around independently more compared to girls.

Marshall (2015) tried to understand the changing situation of children under political oppression and how the restrictions affects their use of space. His findings show that gender difference has a huge impact on the daily pattern of the children and use of the space but in both ways, children generate new tactics to overcome the restriction in peer relationships. Additionally, restriction according to gender is based on cultural differences. Because of this difference, gaps between boys and girls are changing with the geography. This could be the reason why some researchers did not find a noticeable association between the gender of children and permission to use immediate surrounding (Loebach and Gilliland, 2016, 2014; Weller and Bruegel, 2009).

Another factor influencing children's behavior is ethnicity. In their study on the relation between public open space usage and children's independent mobility, Chaudhury et al., (2017) found that ethnicity is associated with children's independent mobility to public open spaces. Supporting results show children from low-income families and unpredominant ethnicity show a higher rate of active mobility (Stewart 2011). This is also related to different ethnic groups having different family structures and parental norms.

Karsten (2005) has suggested a well-grounded categorization of modern day childhoods as indoor children, outdoor children and the "backseat" generation. She compared being a child in the early 60's and today to understand how street was performing and how it is today in three culturally and economically diverse neighborhoods. According to the results of the study, "outdoor children", who spend considerable time outside, enjoy the facilities that their neighborhood provides and are mostly from lower class families. "Indoor children" mostly have working parents who do not allow them to go outside because of stranger danger. Indoor children are the ones who do not have much play opportunities at home by reason of being from low-mid income families; therefore, this group is defined as the most disadvantaged category in all three types. On the other hand, backseat generation children are the ones who can move between activities with chauffeured transportation which are controlled, decided by parents; nonetheless, these children have plenty of play equipment at home in their own control. To sum up, the street used to perform as a playing area when all children were outdoor children, albeit adults and cars dominate now. Streets also perform as a common ground for children from different background. But today, children are more segregated and inequality between children is on the rise (Karsten 2005).

#### **3.1.2.** Household Characteristics of Children

Children's usage of the neighborhood, places where they can play, and how far they can travel are largely restricted and shaped by the parents' safety perception of the neighborhood environment. There are many factors that affect the parents' perception of safety, such as cultural differences, education level, parental norms, past experiences, general policies, and social facilities of the neighborhood. According to Ellen and Turner (1997), parents' education, employment, income, and marital status have a bigger influence on children's wellbeing compared to the neighborhood environment. Malone (2007) argues that changing parenting values with the effect of media, new technological devices lead parents to control and restrict children more and more, affecting children's experience, environmental competence, and resilience. Findings also show that children's age and gender have a big influence on parental restriction and perceived safety.

Study results by Esteban-Cornejo et al. (2016) on perception of neighborhood safety for adolescents and parents show girls' parents perceive higher stranger danger than boys' parents. Rather than adolescents' safety perception of their neighborhood, their results indicate that parents' perception of safety is related with youth's physical activity.

The income level of the family is associated with children outdoor usage. Veitch, Salmon, and Ball's (2008) study on children's active play shows socio-economic status of the family is associated with how children use neighborhood features. According to Çanakçıoğlu (2015) who conducted research with children in İstanbul, children from low-income families have greater environmental experience and a deeper understanding of the urban context.

Mitra (2014) found out that the duration of living is related to the unsupervised movement of children. Those who live more than 10 years in the same house seem to allow children more to be out. At the same time, their research showed that parental work status (if they both work) is negatively related with the child's use of the neighborhood. Weller and Bruegel's (2009) work on neighborhood social capital points out that when parents have fearful thoughts about the immediate environment, children engage less in their local surroundings, and also if children are not familiar and tied to the local community, parents develop a relationship with the community to a degree.

When children reach amenities via a motorized vehicle with parents, it affects children's sense of belonging and understanding of neighborhood environments (Derr, Corona, and Gülgönen 2019). Therefore, car ownership of parents affects children's activity patterns and places. Besides, mobile phone ownership of children changes their permission status to be in the outside environment. Crawford et al. (2017) claim that having a mobile phone enables parents and children to negotiate on outside usage and creates a sense of safety for both parents and children.

To sum up, as Elshater's (2017) study reminds us, parents and children are not attracted to the same places and activities. Therefore, both parents and children should be included in the design and research process to create friendly places for all.

#### **3.2.** Neighborhood-Related Factors

This section provides a literature review on neighborhood-related factors affecting children's neighborhood usage. These factors are examined under two headings as social and physical factors. Social affordances offered by the neighborhood are key determinant factor of children's willingness to play outside (Hayball et al. 2018). Higher child populations in neighborhoods ensure more children are playing outside. Relations with neighbors are important for parents feeling safe about their children being outside. Neighborhood poverty, stranger danger, and crime rate in the neighborhood also affect parents and children's perception of the neighborhood. Therefore, social factors of the neighborhood are examined in detail below.

Uncovering the physical factors affecting the neighborhood perceptions of children and parents is an important step in designing livable child-friendly cities. Even though there are more physical factors affecting children's neighborhood usage, in this study physical factors are examined under vehicular traffic, land use, aesthetic features, residential density access to destination and recreation areas.

#### 3.2.1. Social Factors of the Neighborhood

The social structure of the neighborhood has a significant effect in child development. One example of this is Goux and Maurin's (2006) research which shows that non-educated families in the neighborhood negatively affect adolescents' educational improvement. Neighborhood's cultural texture, the strength of social relations, and the social structure play a major role in whether parents restrict or allow their children's outdoor usage. In this section, the social factors of the neighborhood that affect children's open space usage is examined under four headings. The first section of this part is the child population which is examined through its effect on children's outdoor play. Afterwards, the effect of social relations established by families and children is examined through relationships with neighbors. Then, the relationship between neighborhood poverty and children's one of the most influential factors in children's open space usage, is discussed.

## **3.2.1.1.** Child Population

Population and residential density of the neighborhood influence the perception of safety, physical activity, and usage of the neighborhood destinations. High population density areas are likable for children since it provides social opportunities for residents. Additionally, higher child population areas provide playmates for children. Therefore, the presence of other children around is positively associated with children's play activity (Broberg, Kyttä, and Fagerholm 2013). Karsten (2005) states that a decrease in the child population of the neighborhood causes dropping in children's outdoor usage. Similarly, Hayball et al.'s (2018) study support the argument that the absence of other children in the immediate vicinity has an effect on children playing outside is the presence of a friend because children do not prefer to go out unless they have a friend. Supporting this, Loukaitou-Sideris and Sideris (2010) state that there is a positive relationship between girls' willingness to use the park and the under-18 population.

Residential density in the neighborhood is also a factor related to the neighborhood usage of children. Broberg, Kyttä, and Fagerholm's (2013) study shows residential density is positively associated with children's independent access to affordances. Frank et al.'s (2007) findings point out that residential density is positively associated with walking in children aged between 9-11 because high-density neighborhoods can offer a sense of safety. Since population and residential densities determine the social structure of the neighborhood, together with other social factors, it affects the children's desire to use the outdoor environment and their perception of safety about their neighborhood.

## **3.2.1.2.** Neighborly Relations

Neighbors and social interaction in the neighborhood influence children's development. Also, the social cohesion of the neighborhood affects parental licenses (Schoeppe et al. 2015). Crawford et al. (2017) argue that having familiar people and close

neighbor relationships in the neighborhood positively influences parents' and children's perceptions of safety. This view is supported by Malone (2013) who claims that neighbors ensure the safety of children when there are no parents around. Similarly, Weller and Bruegel (2009) state that the involvement of parents in the local community gives children more autonomy. Mitra et al. (2014) suggest that one of the steps that can be taken to make children safer is intervention at the neighborhood level to produce and strengthen the social relationship between neighbors.

## **3.2.1.3.** Neighborhood Poverty

Carroll et al. (2015) revealed that among other factors income level of the family affects children's travel mode and behaviors. Results of their study show that children from low-income suburban neighborhoods walk to school or shops more often than children from middle-income suburban neighborhoods and have higher levels of permission to travel independently. Similarly, children from low socio-economic neighborhoods have greater independent mobility compared to children from higher socio-economic settlements (Mitra et al. 2014). Besides, Veitch, Salmon, and Ball's (2008) study shows that neighborhoods with lower socioeconomic status were much more distant from parks than neighborhoods with higher socio-economic status. Looking at its effect on children, neighborhood poverty or low socio-economic status is found highly associated with children's unhealthy development (Minh et al. 2017).

All these studies show that while neighborhood poverty negatively affects children's outdoor usage, physical activity, and healthy development, this is also due to low socio-economic status neighborhoods' lack of easy access to urban facilities and the unequal distribution of these facilities.

## **3.2.1.4.** Stranger Danger

Neighborhoods where crime rates are high and the social environment is seen as dangerous not only have negative effects on the emotional development of children but also cause behavioral problems (Minh et al., 2017). Parents' fear of strangers and traffic is a determinant factor of children's use of the outdoor environment (Carver, Timperio, and Crawford 2008; Hillman, Adams, and Whitelegg 1990; Kyttä 2004; Jack 2010; Mackett 2013). Although the two main factors affecting the safety perception of parents are stranger danger and risks related to traffic, it is shown that the fear of strangers is the most important cause of restrictions of children (Malone 2013; Crawford et al. 2017; Faulkner et al. 2015). Stranger danger is expressed by fears of both physical harm and kidnapping in Crawford et al.'s (2017) research. Many parents also think that children can be easily fooled because of their age. It is not only the parents who worry about strangers, children also fear strangers or being bullied by older children. In addition, the perception of crime in the neighborhood has an impact on children's usage of the outdoor environment. Lambert et al. (2019) state that parents' and children's perception of crime negatively affects children's physical activity around the neighborhood.

## **3.2.2.** Physical Factors of the Neighbourhood

A diverse range of environmental affordances appreciated by children such as accessible parks, natural areas, mix land use, leisure opportunities are appreciated by children (Malone, 2013). Besides, built environment structure and features like safe routes, sidewalks in good condition, and traffic calming implementations affect children's mobility positively (Curtis, Babb, and Olaru 2015). Studies also show that high rise areas have fewer children in the street (O'Brien et al., 2000). However, under this title, physical factors affecting children's usage of the neighborhood environments is examined under the headings of vehicular traffic, land use, aesthetic features, residential density, access to destinations, and recreation areas.

## **3.2.2.1.** Vehicular Traffic

To uncover children's experience in the local environment, Loebach and Gilliland (2010) conducted research with children using a combination of qualitative methods like child-led neighborhood tours and photography. Their findings show that children find streets with heavy traffic too noisy and risky because it contains unfamiliar people who might be dangerous, and they are not allowed to go there.

Krishnamurthy's (2019) research tries to understand what planners and designers could do to create family-friendly cities with the analysis of streets, play spaces, and green spaces in Eindhoven, Netherlands. Her findings show that the volume of traffic is the most common reason to perceive the street as an unsafe place. Parents comment that traffic calming, visible traffic signs, and safer bicycle routes would change their sense of safety. Esteban-Cornejo et al.'s (2016) study results also point in the same direction of taking steps towards traffic safety. According to their findings, parental perception of traffic safety is associated with adolescents' physical activity level. Additionally, Villanueva et al.'s (2012) study state that when there is a presence of busy roads, only the girls' activity space is restricted by parents.

Timperio et al. (2004) state that the absence of traffic lights and controlled crossings reported by parents was associated with the low level of walking behavior among boys. According to Davison and Lawson (2006), the presence and quality of sidewalks, low-density traffic, and available public transportation are positively associated with children's physical activity and walking behavior in most studies. Ekawati's (2015) study about street elements' and quality's effect on child play in Indonesia point out that traffic calming is the most determinant factor of children's activities in the street, with size and green spaces as the following determinant factor.

## 3.2.2.2. Land Use

Children enjoy local commercial services that meet their interests. Commercial services in close proximity like groceries or snack bars allow children to interact with the

local community and build a relationship (Loebach and Gilliland, 2010). Loebach and Gilliland's (2014) further research on children's neighborhood activity space states that when there are commercial areas, mix land uses in 800m buffer to children's home, children spent more time in distant settings. Likewise, Zhang and Li (2012) claim mixed land use encourages children's social interaction and increases physical activity. On the other hand, Villanueva et al. (2012) note that although children's use of some local destinations has a positive effect on their mobility, not every destination has a positive effect. For this reason, while designing mix land use areas, it is necessary to examine the needs of the local community and children in detail.

## **3.2.2.3.** Aesthetic Features of the Neighborhood

For some children graffiti is a sign of gangsters or people who might hurt them, while some children consider it as cool artwork; besides, children view abandoned places and neglected yards as nasty and unsafe places (Loebach and Gilliland, 2010). A broader perspective has been adopted by Hayball et al. (2018) who argue that although the presence of graffiti triggers negative associations with bullying adolescents, children indicate that they also like street art and colorful walls. For this reason, these areas contain potentials that can be transformed into street art and community bounding project which can be viewed as a positive thing for children. While Martin and Wood (2014) state that neighborhood aesthetics have not been studied much because it is not a very well defined concept, they claim that aesthetic elements of the neighborhood, such as garbage on the street, graffiti, neglected houses, and gardens are associated with crime and cause safety concerns. However, they say even if most of the studies in this field are carried out with adults, children, who are affected by the experiences and views of their parents, make a connection between safety and neighborhood aesthetics.

## **3.2.2.4.** Access to Destination

Children's access to and usage of local destinations and recreational areas is related to their proximity to these destinations (Lambert et al. 2019) and the form of the built environment. Derr, Corona, and Gülgönen (2019) conducted a study with children from Boulder and Mexico City to understand children's perceptions of urban resilience with creative child-friendly methods. Results show being able to access play spaces, natural elements, friends, and families were the common factors for children to feel safe. Besides, Davison and Lawson(2006) point out that most of the studies found a positive association between children's physical activity and their proximity to playgrounds and parks. Although the proximity of neighborhood destinations is an important factor, the street structure also has a relationship with the accessibility of these destinations. Holt et al.'s (2008) study highlight that grid-style neighborhoods promote active walking compared to the lollipop-style neighborhood and grid-style neighborhoods is more appealing for older children to access neighborhood opportunities. However, Villanueva et al.'s (2012) study show that while the nearby destinations are easily accessible to children, they prefer not to use them if the destination is not interesting enough. In other words, these areas should not only be in close proximity but should be designed to meet the different usage needs of children.

### 3.2.2.5. Recreation Areas

Loebach and Gilliland's (2010) study states local parks were the favorite place of most of the children because they contain opportunities to play, but for some, the presence of scary people and trash make it an unpleasant environment. When play facilities are well-kept and plenty in the neighborhood, children prefer to use them even if they found playing in the street as safe and more accessible (Krishnamurthy 2019). The presence of recreational areas near the home of the child is positively associated with physical activity (Davison and Lawson 2006). According to Frank et al. (2007), access to open spaces and recreational facilities is the most important factor for walking behavior of all ages (5-20 years). Mitchell, Clark, and Gilliland's (2016) findings also support the importance of access to recreational areas like parks and sports fields for children's physical activity.

A high proportion of green areas is positively associated with children's access to functional and emotional affordances (Broberg, Kyttä, and Fagerholm 2013). Routes with different kinds of trees are attractive to children but only when they are tidy and well-kept (Loebach and Gilliland, 2010). Lambert et al.'s (2019) review on children's outdoor play and built environment show the proportion of green areas is moderately associated with the outdoor play of children aged between 2-15.

# **CHAPTER 4**

## **STUDY SITE AND METHODOLOGY**

## 4.1. Study Site

The city of Çorum is located in the northern part of central Anatolia. Çorum has a total population of 530.126 in 2020. Its central district has 56,46% (299.325) of the total population (TUIK, 2020). With the establishment of a state university and recent migration from eastern countries, the socio-economic structure of the city has changed gradually. Meanwhile, the city has started to grow to meet the demand. Figure 4.1 shows a general land use analysis of Çorum with the emphasis on selected neighborhoods for the study called Buharaevler and Gülabibey.

With the changing needs of the population and the expansion of the city in different directions, new boulevards appeared in different neighborhoods. The Ankara-Samsun highway is one of the important roads of Çorum which divides the city. While there were not many residential areas on the northern part of the road in the past, rapid construction has started to occur in the last 20 years. The Eastern part of this area consists of luxury detached houses and the rest is constructed as residential areas with 6-7 story buildings. There are industrial areas in the southwest part of the city. In this part of the city, the new city hospital and the new urban park are located. Another important road which works as a main artery is going from the south-west to the north-east of the city. While this artery connects to the highway at both ends, it also gathers the important commercial, recreational, and cultural centers of the city around it. There are densely used green areas near the city center on this line. These green areas are also located near the municipality's sports centers and the theater.

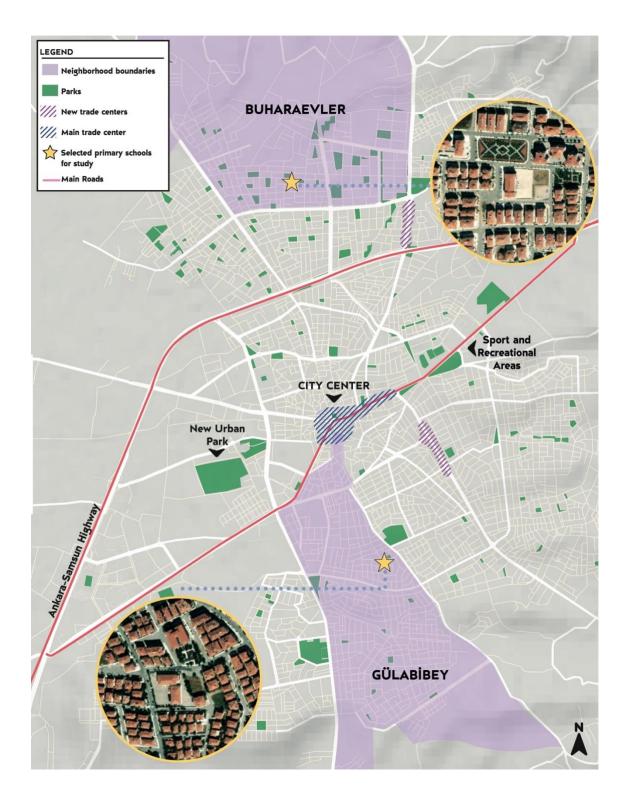


Figure 4.1. Land Use Analysis of Çorum

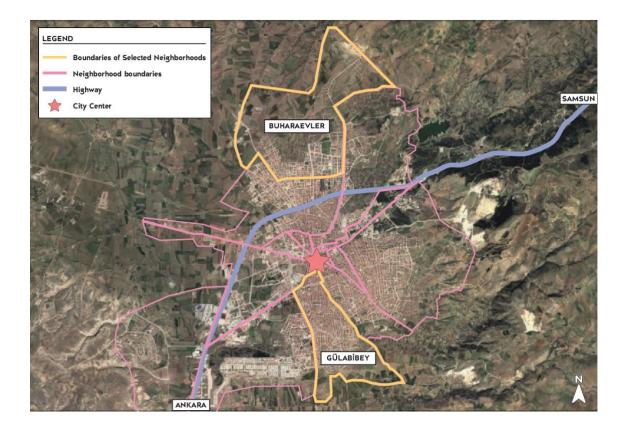


Figure 4.2. Location of Two Neighborhoods in Çorum

Conducting fieldwork in the hometown of the researcher help researcher practically interpret qualitative data since the researcher is familiar with the social and cultural context of the study area (Wüstenberg 2008). Therefore, two neighborhoods from the city of Corum were chosen for the field research due to the familiarity of the researcher with the city. One of them is Buharaevler and the other one is the Gülabibey neighborhood. Figure 4.2 shows the boundaries of these neighborhoods. To examine the factors affecting children's perceptions of the different neighborhood characteristics, these two neighborhoods were chosen because they differ in terms of built environment characteristics. Additionally, their child population rates are considered. Table 4.1 shows the total population and child population in all neighborhoods registered to the municipality of Çorum. According to this data, Buharaevler and Gülabibey neighborhoods have the densest child populations. The presence of other children in the outdoor environment increases children's willingness and involvement in play activities (Broberg, Kyttä, and Fagerholm 2013). Therefore, to understand children's open space usage, I chose the neighborhoods which present different characteristics while containing a high rate of the child population.

Name of The	Ne	ighbourh	<b>Child Population</b>				
Neighborhood	18+ 18> Total Population			Rate			
Buharaevler Neighborhood	20306	8759	29065	30,14%			
Gülabibey Neighborhood	29581	12555	42136	29,80%			
Kunduzhan Neighborhood	2036	858	2894	29,65%			
Mimarsinan Neighborhood	11542	4623	16165	28,60%			
Ak Kent Neighborhood	3800	1504	5304	28,36%			
Ulukavak Neighborhood	44121	17236	61357	28,09%			
Üçtutlar Neighborhood	17909	6847	24756	27,66%			
Çöplü Neighborhood	1587	522	2109	24,75%			
Karakeçili Neighborhood	4434	1445	5879	24,58%			
Kale Neighborhood	14844	4705	19549	24,07%			
Bahçelievler Neighborhood	36309	10801	47110	22,93%			
Yavruturna Neighborhood	5791	1371	7162	19,14%			
Yeniyol Neighborhood	1148	255	1403	18,18%			
Çepni Neighborhood	2255	456	2711	16,82%			
Bayat Neighborhood	83	16	99	16,16%			

Table Error! No text of specified style in document.1. Neighborhood Population of Merkez/Çorum (Source: TUIK, 2020)

Gülabibey is located in the southern central part of Çorum (Figure 4.2). Gülabibey neighborhood is an old neighborhood of Çorum, where mostly low-income families live. Additionally, people from diverse backgrounds used to live in Gülabibey. Therefore, lots of newcomers from different ethnic identities prefer to settle in this neighborhood. According to the Middle Black Sea Development Agency's social analysis report, Gülabibey is one of the neighborhoods where migration from rural areas to the cities is concentrated (OKA, 2015). The building typology of this area consists of low-rise buildings with gardens and generally 2-3 storey apartments (Figure 4.4).

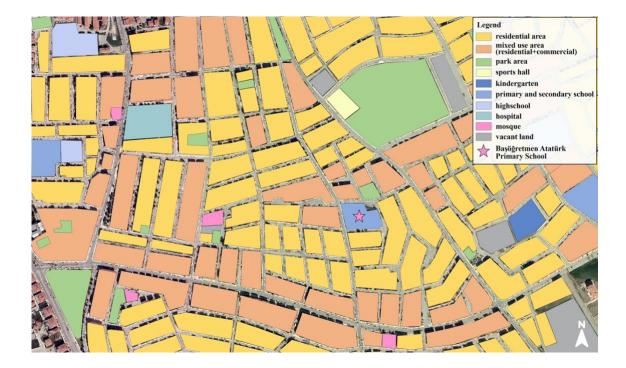


Figure 4.3. Land Use Analysis Around the Selected School in Gülabibey Neighborhood

Figure 4.3 shows a land use analysis around the selected school in the Gülabibey neighborhood. There are many commercial areas around the school, but the green areas are small and located far from each other. The western part has high schools and a well-known hospital. The large park in the eastern part is surrounded by wide roads and is located on sloping land. Although the park has a large area, it has empty areas that are neglected and unforested.



Figure 4.4. Street Views from Gülabibey Neighborhood



Figure 4.5. Land Use Analysis Around the Selected School in Buharaevler Neighborhood

The Buharaevler neighborhood contains old parts of the city as well as country cottages, and newly constructed residential areas. The city is expanding on this side. Most high- and mid-income people live in this neighborhood. It is a region consisting of 5-6 story apartments with gardens. Figure 4.5 shows the land use around the selected school. Since this area is a new residential area, there are many vacant building blocks. However, the green areas are quite numerous and in close distance. Figure 4.6 presents some park pictures from the neighborhood. Commercial areas are also located around the main roads. There are country cottages in the northern part which connect to dirt roads.

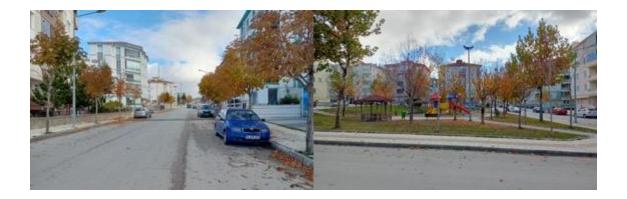


Figure 4.6. Street Views from Buharaevler Neighborhood

Table 4.2. Gross Residential Density and Play Area Per Child

	Gross Residential Density (pph)	Play area per child (m2)				
Buharevler	94,98	16,34				
Gülabibey	144,80	4,65				

Table 4.2. shows gross residential density and play area per child for two neighborhoods. Gross residential density is calculated by the base map provided by Çorum Municipality. Total Park areas are calculated to understand the play area per child according to child population. Results show children from Buharaevler Neighborhood have approximately four times more play areas compared to children from Gülabibey Neighborhood. Besides, gross residential density is lower in Buharaevler compared to Gülabibey Neighborhood.

## 4.2. Study Methods for Data Collection

This study aims to examine the social and physical factors that affect children's perception and usage of the neighborhood. In this context, research is conducted with both 22 children aged between 9-10 and their parents living in Buharaevler and Gülabibey neighborhoods. To examine the factors that affect children's neighborhood usage, three research methods have been applied. These are site observations in two selected neighborhoods, a survey with 132 parents of 3rd and 4th grade children, and the focus group interviews with a selected group of 22 students. The focus group interviews with children also included drawing and a trip diary technique. Different child-centered methods were used together to understand children's experiences and perceptions of the neighborhood, as the use of different methods together provides a deeper understanding of children's experiences (Hemming 2008; Greene and Hill 2005).

To begin the data collection process, one primary school from Buharaevler and one from the Gülabibey neighborhood was selected as a study area. Thereafter, ethical approval was obtained from the İzmir Institute of Technology (See Appendix D), and permission to conduct research in two primary schools was obtained from the Ministry of National Education, Çorum Provincial Directorate of Education (See Appendix C). These are the Bekir Aksoy primary school from Buharaevler neighborhood and the Başöğretmen Atatürk primary school from Gülabibey neighborhood. The Buharaevler neighborhood has three primary schools one of which is private, while the others are public. Bekir Aksoy primary school is selected as the study area because of its centrality among others. Gülabibey neighborhood has five primary schools. Başöğretmen Atatürk primary school is selected from these schools because it is the central one among others.

Data collection for this study started with the parental survey. With the help of the data from parental surveys, children were selected for focus group interviews. After getting permission from parents for their children to join the study, focus group interviews with children took place for two following weeks. During the parental survey and focus group interview phases, neighborhood observations were made simultaneously. Each data collection process mentioned is explained below in more detail.

Outdoor usage of primary school age children is determined by parents' permission and restriction mechanisms, in addition to individual characteristics of the children and neighborhood qualities. In order to understand the factors that affect children's usage of the neighborhood, it is necessary to have data on parents' perceptions of the neighborhood and permission mechanisms for their children. Therefore, I conducted a survey with 132 parents of 3rd and 4th grade primary school students. Survey questions were generated through consideration of previous surveys about parents' perceptions of neighborhoods. The parental survey with open and close-ended questions includes three sections. These sections contain 37 questions related to understanding the general perception of the parents about their neighborhood and their home (9 questions), their child's outdoor usage and their control mechanisms on it (14 questions), and general information about the socio-economic characteristics of the family (14 questions). Questions included in this survey are detailed in the following sections.

The parental surveys were applied in Bekir Aksoy Primary School and Başöğretmen Atatürk Primary School in Merkez/Çorum. Due to the pandemic situation, the Ministry of National Education did not allow to distribution of survey questions in paper format to students to take these surveys to their parents. Therefore, the survey was conducted through an online platform. This situation decreased the number of responses received. Online surveys (see Appendix B) were distributed through the WhatsApp group of parents by 3rd and 4th grade teachers at the two public primary schools. The number of responses was lower than expected. Only 132 parents from both neighborhoods responded to the online survey. 94 responses came from the parents of 48 boys and 46 girls from the Buharaevler neighborhood and 38 of them are from parents of 24 boys and 14 girls from the Gülabibey neighborhood.

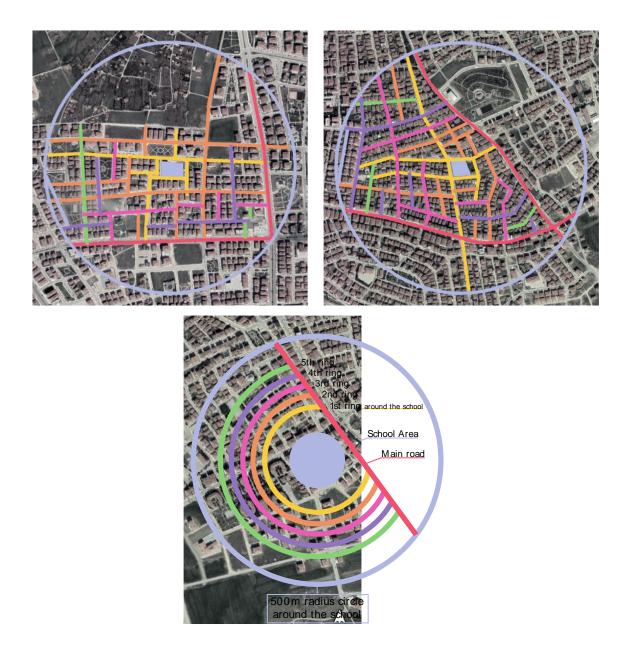


Figure 4.7. Buharaevler (left) and Gülabibey's (right) observed street for scoring.

Field observation was conducted in the neighborhood for two consecutive weeks. Each neighborhood was observed two times on weekdays. According to five categories generated based on literature review, mobility features, aesthetic features, land use, sense of safety, and play options of the neighborhoods are observed and analyzed using a scoring method. The observation was limited between the area of 500 meters from the school and the main roads. Figure 4.7 shows observed streets in both neighborhoods for scoring. In order to analyze factors affecting children's open space usage, features and qualities which increase children's neighborhood usage score as 1, and the ones which decrease children's usage score as 0 on the neighborhood features' checklist for each ring (see Appendix B). To enter data into the scoring checklist, the streets in the neighborhood were divided into rings based on their distance from the school. While the streets around the school were considered as the first ring, the streets parallel to it were numbered as the second, third, and fourth rings according to their distance from the school (See Figure 4.7). The 5th ring was not considered in the scoring, and the scoring was made according to the 4 rings around the school. It is aimed to show current neighborhood features and qualities through field observation. Besides, scoring results enable to make a comparison of differences between actual physical features of the neighborhood and perceived ones by parents and children.

For the stage of gathering information through the children, this thesis deployed several techniques to gather data about and to understand children's spatial experience and perception. Using a combination of different research techniques enables respondents to join the research process with one fitting them since one method cannot suit everyone. The focus group technique was chosen for this study because it is particularly useful for combining different methods. Other advantages of focus groups are that it diminishes pressure on respondents by giving them time to think and listen to others (Basch 1987) and that it balances the power relationship with the help of peer relations in the discussion with the researcher (Hennessy and Heary 2005).

To determine who is going to be invited to the focus groups the information of parents' street addresses from the online parental survey is used. Children living within a 500-meter radius away from their school are considered as meeting the criterion for focus group interview participants. The parents of 26 children who met the criterion were invited to the phone and their verbal consent was asked for their children's participation in the study. A total of 22 parents (11 from each school) gave their consent for their children's participation in the study. Due to the pandemic situation, the Ministry of National Education did not allow face-to-face interviews with children. Thereupon, a bag containing maps, drawing papers, drawing materials, and a diary to be used in the focus group study was prepared for each child and given to the school officers to be delivered to these children.

To set a time for the online focus group meeting and to share the meeting links, I created a WhatsApp group for the parents of the children of each neighborhood. Nine

children (four girls, five boys) from the Gülabibey neighborhood and ten children (five girls, five boys) from the Buharaevler neighborhood attended the first focus group interview. Because of the pandemic circumstances, children were tired of online classes, so it was hard to convince them to join the online interview. Also, permission from the ethical committee arrived during the last open weeks of primary schools, and the first group discussion was held after school finished. Therefore, children were out more or had already moved to their villages, and some of them were not able to connect to the internet. The week after the first group discussion, was a national holiday in Turkey, so parents did not want to set a time for that week. The week after, we set a time for the second focus group interview. Only four children (one girl, three boys) from the Buharaevler neighborhood and nine children (five girls, four boys) from the Buharaevler neighborhood joined the second focus group interview. The internet connection was not stable for some children so some of them were poorly connected to the whole interview.

The participated 11 students from each school were divided into two groups including five and six students with an equal gender distribution. First, the focus group discussion with children in each of the four groups included the following steps;

#### i. Introduction of the study and warm-up game:

I represented myself and my study to the children and thanked them for being a coproducer of the knowledge. While I was introducing what I expected from them and how the discussion would be shaped, I emphasized that there was no right or wrong answer for this study, I just wanted them to share their experiences freely. After that, we played an icebreaker game to learn each other's names and to warm the barrier that online interviews cause.

#### ii. Map drawing with recalling photography from the neighborhood:

The map of their neighborhood which was provided to the children with the bag was shown on the screen and children took their map in front of them (See Figure 4.8 and 4.9). Supporting interviews with visual materials helped to analyze interviews (Nansen et al. 2015). Therefore, I gave a basic explanation of the map to the children and showed them some pictures from important places in the neighborhood to make it easy for them to navigate. I wanted them to circle their home, the places where they usually play, the parks that they usually go to, the places they walk. This exercise would be successful in a face-to-face interview, but it lost its meaning in the online interview. It was hard to discuss the places that they found important because of the screen barrier.



Figure 4.8. Example of a Map Given to Children Living in Gülabibey for Map Drawing Exercise



Figure 4.9. Example of a Map Given to Children Living in Buharaevler for Map Drawing Exercise

# i. Discussion about the neighborhood to understand children's perception:

After we finished the mapping exercise, I started to ask the children questions about their neighborhoods. I reminded them not to answer the questions if they did not want to and that this was not a class exam, and they would not get a grade. Between and in questions, I asked them some questions to keep them on the topic and to encourage them to talk more and give more detail. The order of the following questions in each focus group interview was changed according to the interest and answers of the children. Questions which were asked to children to understand their perception of the social and physical characteristics of the neighborhood are "What is the best thing about living in this neighborhood?", "What do you like about your neighborhood, and what do not you like?", "What kind of things in your neighborhood make you scared?". Some other questions were asked to understand children's outdoor usage. "Does car traffic affect your outside usage and play?", "Where is your favorite place in your neighborhood?", "Can you go to a park close to your home?", "Are there things you like, and you do not like in the parks?" and "What kind of activities do you do in your neighborhood rather than playing a game?".

#### ii. Explanation of trip diary:

The trip diary technique enables us to understand the daily routines and activities of children and to compare how children's open space usage varies (Punch 2002). Chaudhury et al. (2017) used the travel diary method with children for one week to investigate the relationship between CIM and children's usage of public open spaces. They include sections for children to fill each day. Sections of the trip diary are the destination, travel mode, accompaniment status, the purpose of the trip, and emotional outcome. Because I mainly focus on children's usage of their neighborhood in terms of meaningful experience in my research, I generated the trip diary sheets for children to fill for seven consecutive days of the week. Additionally, there was another map in the bag that the children brought from school. This map was the same map that children used during the mapping exercise. I wanted children to mark destinations

which they wrote about in their trip diary. However, because of the online format, I skipped this task as the mapping exercise was already too hard for children at this age. Lastly, I thanked them again for sharing this valuable information with me and finished the interview by explaining to them how to fill the trip diary until the next meeting. Figure 4.10 shows an example from a trip diary.

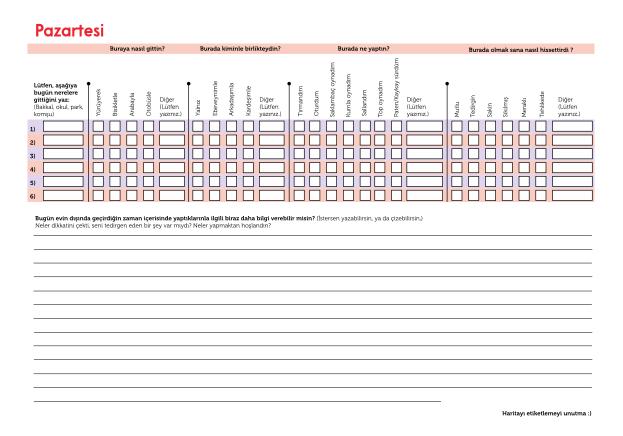


Figure 4.10. One Page from Trip Diary

The second focus group discussion included the following steps;

### i. Warm up talk about the neighborhood:

The second focus group interview started with recalling the first interview topic and the aim of the study. I asked the children if they had anything they would like to add to the topics we discussed at our first meeting.

#### ii. Drawing exercise about their dream neighborhood:

After a small talk, children were asked to draw a neighborhood in which they wanted to live in. I told them not to feel pressure about drawing and reminded them even if they were not able to draw what they wanted to, they would have a chance to express themselves verbally.

#### iii. Verbal expression of the drawing:

After children finished drawing, each child showed their drawing to the camera and explained what they drew and why. After all children finished, I thanked them all again and finished the second focus group interview.

Children were supposed to bring their drawings and trip diaries back to school but during that period school was closed and most of the parents did not bring the files to the school, some families got infected with Covid-19, and some told me they lost the files. In the end, the trip diary, map, and drawing files were collected from only nine children, of which five are from the Buharaevler neighborhood (three girls, two boys), while four of them are from the Gülabibey neighborhood (one girl, three boys).

All focus group discussions were recorded using a voice recorder and then transcribed for content analysis. I used MAXQDA2020 for the content analysis of the focus group interviews. First, I uploaded the transcribed document to MAXQDA and coded the children's answers. After I finished coding, I grouped codes into positive and negative perception categories. I explain the categories in more detail in the results section below.

As a result, the variety of methods used in this study was chosen to gain an indepth understanding of children's spatial experiences and perceptions. With the observation method, data were collected on the different characteristics of the neighborhoods, the built environment features, and the current status of these features. The parental survey, which consisted of open and closed-ended questions, provided data on the general perception of the parents living in this neighborhood, their licenses on their children to go outside, and the demographic characteristics of the parents. With the trip diary technique used in the focus group study, data on children's daily routine and neighborhood usage were obtained. In addition, the themes for the neighborhood that children wanted were revealed with the drawing technique. While using different methods together and discussing them verbally in the focus group interviews make it easier to interpret the data obtained. Data about the experiences and perceptions of the children about the affordances offered by the neighborhood were collected through the questions asked to the children in the focus group study. The data obtained from the field research are discussed in the next chapter.

# **CHAPTER 5**

# RESULTS

This chapter examines factors affecting children's neighborhood perception and usage in detail through data generated from the field observation and the research conducted with parents (132 respondents) and selected children (22 participants). In the scope of the research, three research methods have been applied to examine children's neighborhood usage. These are observations in selected neighborhoods, online parental surveys, and focus group interviews with selected children. The scoring method is used to analyze neighborhood qualities, descriptive analysis is employed to interpret online parental survey data and content analysis is employed to interpret data gathered from focus group interviews.

Results are divided into four sections. The first section examines the difference between the characteristics of the two neighborhoods according to field observation. The second section is about neighborhood perception of parents and children. The third section scrutinizes children's current neighborhood usage. The last section is about potential intervention areas for designing child-friendly neighborhoods according to parents' safety perception and children's desires and expectations in the neighborhood.

## 5.1. Field Observation on Neighborhood Characteristics

Table 5.1 shows the scoring of neighborhoods according to data obtained from field observations. Neighborhood qualities are examined under five categories which are generated according to previous studies. These categories are mobility features, aesthetic features, sense of safety, land use, and play options.

The scoring table presents remarkable differences between neighborhoods. Buharaevler neighborhood got higher scores than the Gülabibey neighborhood in every category. Mobility features scoring shows Gülabibey neighborhood has very poor conditions compared to Buharaevler. Sidewalk conditions are not adequate for the pedestrian in Gülabibey. Sidewalks are narrower than 1,5 meters and many of them are broken and in need of repair. On the other hand, the Buharaevler neighborhood has newly constructed sidewalks. Besides, the Buharaevler neighborhood has different bicycle routes around the parks while Gülabibey has none. There is only a traffic sign close to the schools to lower vehicular speed in both neighborhoods but there is no other traffic calming implementations in neighborhoods.



Figure 5. 1. Street View from Buharaevler (left) and Gülabibey (right) Neighborhoods.



Figure 5. 2. Park in Buharaevler (left) and Gülabibey (right) Neighborhoods.

Mobility Features         Is there any bicycle route? Yes: 1 No:0         1         1         0         0         0         0         0           Mobility Features         Is the condition of the sidewalk good? Yes: 1 No:0 (need of repair, width is less than 1.5m)         1         1         1         1         0         0         0         0         0         0           Is there any traffic calming implementation? Yes: 1 No:0         1         0         0         0         1         0         0         0         0         0         0           Acesthetic Features         Total score of mobility features of neighborhoods (out of 12)         3         2         1         1         0         0         0         0         0           Me there trees along the Street? Yes: 1 No:0         1         1         1         1         0         0         0         0         0           Most score of aesthetic features of neighborhoods (out of 12)         1	Neighborhood	Field Observation	Buharaevler				Gülabibey				
Mobility Features         Yes: 1 No:0         1         1         0	Features	(1: features that increase children's	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	
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implementation? Yes: I No:0         I         0         0         1         0         0         1         0		Yes:1 No:0 (need of repair, width is		1	1	1	0	0	0	0	
Aesthetic       Are there trees along the Street? Yes: 1 No:0       1       1       0       0       1       0       1         Aesthetic       Features       Are there trees along the Street? Yes: 1 No:0       1       1       1       0       0       1       0       0       1         Features       Is maintenance of the buildings good? Yes: 1 No:0       1       1       1       1       1       0       0       0       0         Total score of aesthetic features of neighborhoods (out of 12)       3       3       2       2       1       0       0       0       1         Sense of Safety       Is window level of the buildings at the street level? Yes: 1 No:0       1		Is there any traffic calming implementation? <i>Yes:1 No:0</i>		0	0	0	1	0	0	0	
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Yes: 1 No: 0       1       1       1       1       1       1       1       1       0       0       0       0         Total score of aesthetic features of neighborhoods (out of 12)       3       3       2       2       1       0       0       1       1         Sense of Safety       Is window level of the buildings at the street level? Yes: 1 No:0       1				1	1	1	0	0	0	0	
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Is there any play equipment suitable for different age groups?     0     1     0     0     0     0			1	1	1	1	1	0	1	1	
for different age groups? 0 1 0 0 0 0											
	Play Options	for different age groups?	0	1	0	0	0	0	0	0	
Are there children playing outside?			1	1	1	1	1	1	1	1	
Are there open spaces for individual and group usage? Yes: 1 No:0111000			1	1	1	1	0	0	0	0	
Total score of play affordances of neighborhoods (out of 12)232211194						2	1			1	

In terms of aesthetic features, Buharaevler received 10 points, while Gülabibey district received 3 points. As in other categories, it seems that the characteristics of the Buharaevler neighborhood are in a better condition in this category. Although there are streets along most streets in Gülabibey, the trees are located on the sidewalks in such a way as to block the pedestrian path. Since most of the apartments in Buharaevler are newly constructed, their current condition is well-maintained. In addition, the exterior facades of the houses in Gülabibey seem to have been abandoned in general (See Figure 5.3.). When we look at the general cleanliness of the neighborhood, the streets in the Buharaevler are generally clean and well-maintained, but there is a lot of rubble and accumulated garbage on the streets in Gülabibey.

In the sense of safety category, the Buharaevler neighborhood has 7 points and Gülabibey has 4. Figure 5.4. shows vacant lots from each neighborhood. As a newly constructed area, Buharaevler has empty lots. Gülabibey has some empty lots in-between houses and also has wider empty lots which can be turned into public open spaces. There are a lot of graffiti and damaged public properties in Gülabibey, almost every street has graffiti in the observation area. This can decrease the safety perception of parents and children.



Figure 5. 3. Conditions of Building in Buharaevler (left) and Gülabibey (right) Neighborhoods.



Figure 5. 4. Vacant Lots in Buharaevler (left) and Gülabibey (right) Neighborhoods.

Both neighborhoods have mixed land use areas and trade axis in proximity. That is why each of them has vibrant streets. There is a huge difference between the neighborhoods regarding the proportion of green areas. Buharaevler neighborhood has a lot of newly constructed public parks in close proximity while Gülabibey has only a few. There is also a youth center and open public sports areas in Buharaevler while Gülabibey has none.

The last category of scoring is play options. Each neighborhood has children outside playing in the streets and in the gardens of apartments. Children from Buharaevler also play in parks that have different play options like playgrounds, basketball areas, pergolas where children can play in groups or as individuals. Like many public playgrounds, playgrounds in both neighborhoods have play equipment for younger children. Figure 5.2 and Figure 5.5 show the conditions of parks. In each photo, parks from the Gülabibey neighborhood have damaged areas and graffiti around them.



Figure 5. 5. Park in Buharaevler (left) and Gülabibey (right) Neighborhoods.

## 5.2. Perceptions of Neighborhood

This section provides results from the data gathered by an online parental survey and the transcription of focus group interviews with children. First, how parents from Buharaevler and Gülabibey neighborhoods perceive their neighborhood is examined, and then factors affecting this perception are addressed. After that, children's neighborhood perception is discussed under positive and negative experiences categories.

## 5.2.1. Neighborhood Perceptions of Parents

First of all, the differences in education and income levels were specified to show the demographic structure of the parents participating in the study. Figure 5.6 shows the distribution of participant parents' education levels in two neighborhoods. The education level of participating parents is higher in Buharaevler. While 31,91% (30 out of 94) of the respondents from Buharaevler have a higher level of education than high school, only 21,05% (8 out of 38) of them have a higher level of education in Gülabibey.

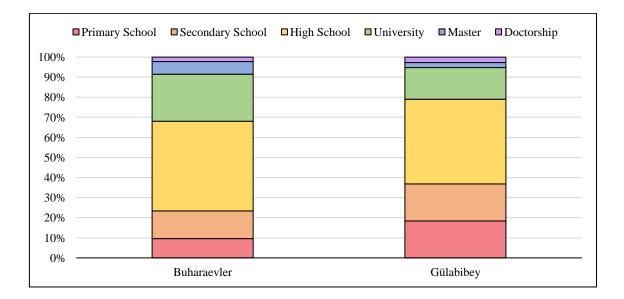


Figure 5. 6. Distribution of Survey Participants by Education Level

Figure 5.7 shows the income level distribution of participants from the two neighborhoods. The multiple choice (single response) question is formulated as "Select the average monthly income entering the house". The income level is grouped into four categories starting from minimum wage in Turkey. According to the answers, it is clear that families from the Buharaevler neighborhood have a higher monthly income than families from Gülabibey.

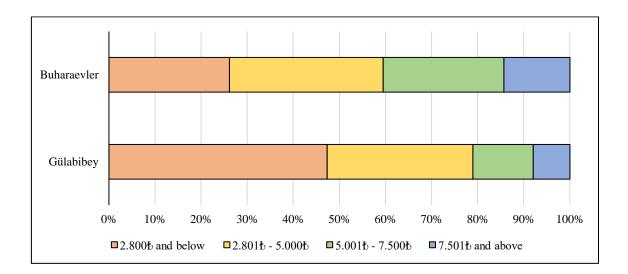


Figure 5. 7. Distribution of Survey Participants by Income Level

In order to understand children's neighborhood usage and the factors affecting it, the online parental survey, which was conducted for this research, included questions on parents' perceptions of their neighborhood. To understand the reason for living in that specific neighborhood, the motivation of parents was questioned in a multiple choice (multiple responses) question as "Why did you choose to live in this neighborhood?". Figure 5.8 presents a comparison of the responses from the two neighborhoods. 51,06% (48 out of 94) of all responses from Buharaevler were that it is a decent neighborhood. The following motivation for parents to live in this neighborhood is being safe for children with 30,85% (29 out of 94) out of all responses. On the other hand, 50% (19 out of 38) of the responses in Gülabibey is that it is economically affordable, 28,95% (11 out of 38) of the responses are that they are close to relatives/friends in the Gülabibey neighborhood. The parents from the Buharaevler neighborhood have unexpectedly selected the "close to central areas" option more than the parents from the Gülabibey neighborhood. Although

the Gülabibey neighborhood is closer to the city center, the main roads in the northern part of the neighborhood and the commercial uses around the road are reducing accessibility. However, the new trade axis formed on the east side of the Buharaevler neighborhood is seen as the new central area (See Figure 4.1).

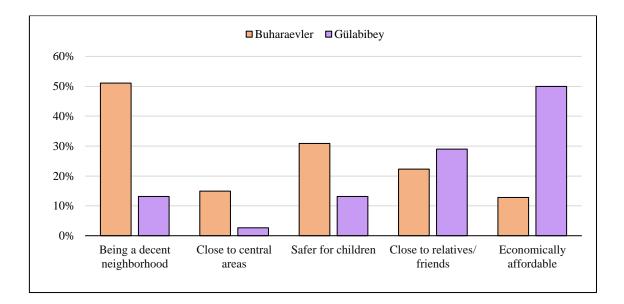


Figure 5. 8. Reasons of Living in that Neighborhood.

To understand the perception of the parents about selected places in the neighborhood, 4 – Likert scale questions were asked as "Tick the following items according to whether you see the places enough in your neighborhood for your child or not.". Figure 5.9 shows the percentages of responses in each neighborhood. In all categories, parents from Buharaevler select a more positive response for their neighborhood's destinations and features than Gülabibey parents. Activities were the most inadequate category among all for both neighborhoods. After the activity category, parents from Gülabibey mostly pointed out the inadequacy of the green and play areas in the neighborhood. Sidewalks, general cleaning of the neighborhood, and parks were mostly selected as very good in the Buharaevler neighborhood.

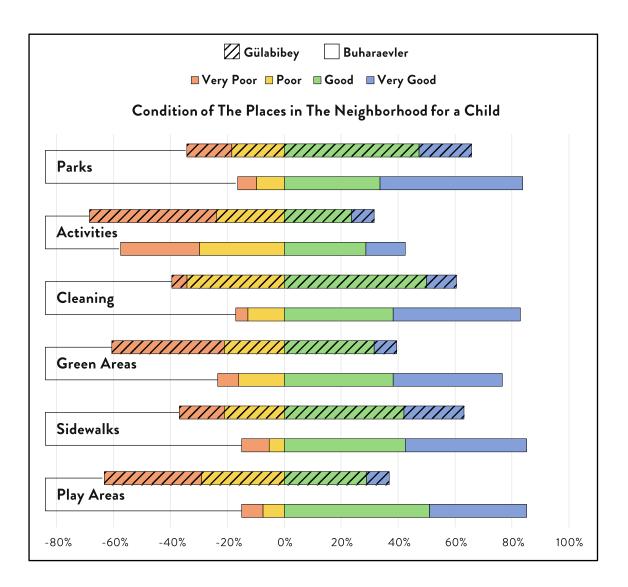


Figure 5. 9. Condition of the Places in the Neighborhood According to Parents.

To understand parents' general safety perception of their neighborhood, a 4 – Likert scale question was asked as "Do you find this neighborhood safe?". Figure 5.10 shows differences between neighborhoods on safety perception. 55,32% (52 out of 94) of parents from Buharaevler find their neighborhood very safe for their children. This number is 21,05% (8 out of 38) for parents from Gülabibey's. A little safe answer is highly marked by parents from Gülabibey. When we look at the general picture, even if Buharaevler parents' perception of safety is higher than Gülabibey, only a minority of the parents marked a negative response on safety for both neighborhoods.

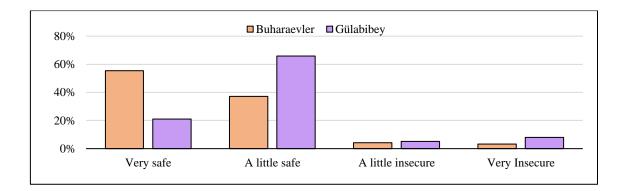


Figure 5. 10. Parents' Perception of Neighborhood Safety.

To understand the safety perception of the parents about selected places in the neighborhood, a 4 – Likert scale question was asked as "Tick the following items according to whether you find it safe for your child to be there or not.". Figure 5.11 shows the comparison of the perception of safety between neighborhoods. In all categories, parents from Buharaevler selected more positive responses for their neighborhood's place than Gülabibey parents. One answer among all perceived as highly insecure for parents from Gülabibey is a park close to home. Schoolyard and in front of the house were considered the safest place among all parents.

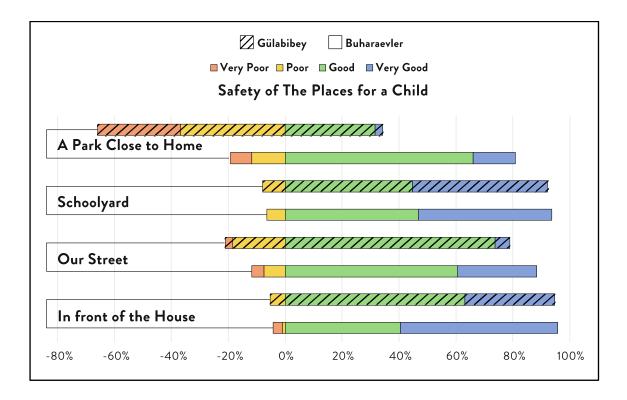


Figure 5. 11. Safety of the Places for a Child According to Parents.

# 5.2.1.1. Factors Affecting Parents' Permission Mechanism for Their Children

"Which of the following sentences expresses your reasons for not letting your child out?" is asked to parents as a multiple-choice question. Figure 5.12 shows the distribution of the responses. In every category, the percentage of the responses from Gülabibey is higher compared to the Buharaevler neighborhood, yet the numbers are close. Supporting the findings from the previous question, distance is a particularly striking response among others. 57,14% (20 out of 35) of parents from Gülabibey said places for children are far, and only 22,09% (19 out of 86) of parents from Buharaevler said the same.

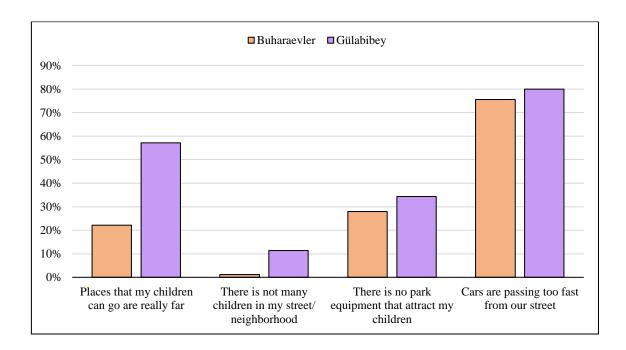


Figure 5. 12. Reasons for Restricting Children from Going Out

Parents were asked the question "Are there any places in your neighborhood that you do not mind letting your child go?". 74,46% (70 out of 94) of the parents from Buharaevler and 73,68% (28 out of 38) of the parents from Gülabibey said yes. Responses from neighborhoods are very close to each other. Therefore, a further question was asked to understand how parents can feel better about their child being alone on outside. An open-ended question was asked, and responses were grouped under five categories. The question was formed as "Why do you find these places safe for your child?" and it was asked after the question of where they allow their child to go. Figure 5.13 compares neighborhoods responses based on this question. A considerable number of responses was "I can see" in both neighborhoods. The majority of responses from Gülabibey are based on being able to see children themselves or children to be seen by neighbors. 46,67% (14 out of 30) of responses are I can see and 26,67% (8 out of 30) of responses are my neighbors can see in Gülabibey. On the other hand, closeness and being able to see the child are the main aspects of feeling safe in Buharaevler. 36,36% (36 out of 99) of the responses are I can see and 25,25% (25 out of 99) of the responses are it is close in Buharaevler. Findings from Figure 5.8. and Figure 5.9. support that proximity to neighborhood destinations importantly affects parents' permission mechanism

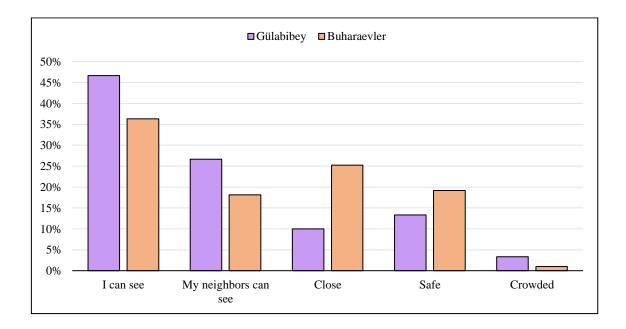


Figure 5. 13. Reasons of Feeling Safe About Children's Being Out.

The question "Are there any places in your neighborhood that you do not allow your children to go to?" was asked to parents. 47,87% (45 out of 94) of parents from Buharaevler, and 55,26% (21 out of 38) of parents from Buharaevler said yes to the question. Parents from Gülabibey were concerned more about their neighborhoods compared to Buharaevler. Following, the open-ended question "Why do you not allow your child to go to these places?" was asked to parents to understand in more detail. Figure 5.14 shows the comparison of neighborhoods in categories that are formed according to responses. What stands out in the table is that insecurity and dangerous people were most commonly selected in Gülabibey, while it is dangerous people and escape/kidnapping for Buharaevler. For both neighborhoods, social features of the neighborhood affect parental perception more than physical features.

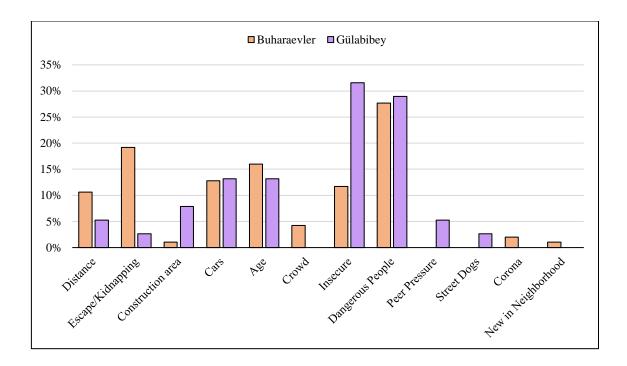


Figure 5. 14. Reasons for Restricting Children's Outdoor Usage.

There were more questions on neighbors, household characteristics, etc. But there was no considerable difference between the neighborhoods based on the number of responses. Parents from both neighborhoods reported that they have good neighbor relations. Therefore, any relation between children's outside usage and having a neighbor was not visible. Additionally, there was no connection between parental working status, number of people living in the house, duration of living in the neighborhood, parents' age, and children's outdoor permission. Also, there was no connection between car ownership, mobile phone ownership, and children's neighborhood usage. A possible explanation for this might be that the overall number of responses was not enough to show the relationship.

### 5.2.2. Children's Perception of Their Neighborhood

In order to understand children's neighborhood usage and the factors affecting it, focus group interviews with selected children from each school were conducted. The first focus group interview included questions about children's perceptions of their neighborhood. I started focus group discussions by asking children "What comes into your mind when I said neighborhood, what is the neighborhood for you?". This was warming up question for the following discussion, and I wanted to explain to them what I mean when I ask questions about the neighborhood. Most of the children defined the neighborhood as buildings and streets. The second most common response was where we play with our friends. This response mostly came from girl respondents. This finding is consistent with that of Cope (2008) who states children understand the neighborhood as a socio-spatial concept. After that, I explained the neighborhood to them as the immediate surroundings where they can walk, be active, and feel part of the community. Responses for the following questions are grouped under positive and negative experiences categories.

## 5.2.2.1. Children's Positive Experiences in Their Neighborhood

Low traffic, trees, parks, different usage, friends, and being quite are the categories that children link with positive experiences according to focus group interviews. Children who are able to use outdoor report more positive experiences in their neighborhood and most of them are from the Buharaevler neighborhood. This result was also observed by Kyttä (2003) who claims children who can spend time in the outdoor environment perceive and actualize more affordances. A gender difference in Buharaevler appeared in the social factors. Most of the girls from both neighborhoods express positive experiences based on neighborhood social characteristics.

Having friends from the neighborhood was the most common category associated with positive experiences in both neighborhoods. All the responses for this category come from girl participants. Some of the girls said they like doing activities with friends no matter what it is. Some of them like the neighborhood because they have lots of friends. One girl (9) from the Gülabibey neighborhood responded to the question of "What is the best thing about living here?" as:

"The best part of living here is making new friends. There are lots of children and some children that I do not know are also passing through. They stop by my neighborhood. I asked them 'Can we be friends?' and they say 'Yes'."

Low traffic and parks are the second most important category associated with positive experiences. Children found low traffic as an important aspect of their neighborhood because it is not affecting their usage. Most of the responses for this category were from the Buharaevler neighborhood. When we look at the parks category, only children from the Buharaevler neighborhood found positive experiences in the park. Having a park close by was appreciated by many of the children. One boy (9) said

"I think there are lots of parks in this neighborhood compared to others."

Being a quite environment is the next category that children found an important aspect for their neighborhood. This category is coded from responses of almost all girls from the Buharaevler neighborhood. They stated their neighborhood as calm, safe, and a lovely place to live.

Trees and different usages are the least categories associated with positive experiences. A small portion of children from both neighborhoods mentioned their enjoyment about seeing trees around and smell of them. Only a few children from the Buharaevler neighborhood expressed they like their neighborhood because they are able to do different activities in the same place.

### 5.2.2.2. Children's Negative Experiences in Their Neighborhood

Stranger danger, lack of parks and activities, dark spots, lack of friends, street animals, peer pressure, and car traffic are the categories that children link with negative experiences. Children from the Gülabibey neighborhood reported more negative experiences in their neighborhood compared to children from Buharaevler. Also, some categories were coded only from responses from Gülabibey.

Stranger danger is the most mentioned category by children. Children from both neighborhoods expressed their fear of strangers because of different reasons. Children from Buharaevler mentioned they are afraid of being kidnapped sometimes. One of the children from Gülabibey expresses their fear based on real people hanging out around or in the parks. He (10) said:

"I do not go to the small park close to us because people are always drinking there. That is why I am not going there."

Lack of parks and activities is the second most common category associated with negative experiences. Only children from Gülabibey responded to this category. A majority of them expressed that their neighborhood is a boring place because there is nothing to do, parks are not close or full of dangerous people. Also, they mentioned they are not allowed to go to the park because of parental restrictions.

Street animals, car traffic, dark spots, and a lack of friends are the next categories that children perceive as negative characteristics of the neighborhood. Only children from the Gülabibey neighborhood pointed out the inadequacy of friends in their neighborhood. Most of them said they do not have a friend to play with therefore they found their neighborhood as a boring place. Dark spots in the neighborhood are scary for some children. Dark spots are illustrated by children as darkness at night and some dark storehouse. Street animals were another category that children from both neighborhoods mentioned as they are scared of it. Also, some children talked about traffic which is affecting their play and usage of the street.

Peer pressure is the category associated with negative experiences. Only children from Gülabibey responded in this category. Children mentioned bullying peers around the parks. One girl (9) said:

"There is someone who is called Emrah coming to the park every day. He uses violence toward girls. It would be better if he was a bit more warmhearted."

Overall, there were 19 negative and 5 positive responses from Gülabibey and 12 negative and 22 positive responses from the Buharaevler neighborhood. Different physical characteristics of the neighborhoods affected children's neighborhood usage. Children from Gülabibey stated a lack of parks and safe areas cause them to perceive their neighborhood as boring and unsuitable place. As a result, they mostly associated their neighborhood with negative experiences. But children from Buharaevler enjoy being able to shift between activities and places. Therefore, they perceive their neighborhood in a more positive way.

### 5.3. Children's Neighborhood Usage

This section examines children's current neighborhood usage with the results from the online parental survey, transcription of focus group interviews, and responses of trip diary. First, parental restriction on playing outside is discussed. Second, the frequency of children's usage of open spaces, travel mode, and accompanying status to these places are investigated. Then, children's neighborhood destinations and activity places are examined. Lastly, children's activity types and the purpose of open space usage are discussed.

### **5.3.1.** Parental Permission for Their Children

To understand the differences of parental permission to play at the doorstep between neighborhoods, the question is asked as "Can your child play alone at the doorstep?". Figure 5.15 shows parental permission differences percentage based on gender and neighborhood variables. In total 85,10% (80 out of 94) of parents from Buharaevler answered with yes, whereas 68,42% (26 out of 38) of parents from Gülabibey

replied with yes. As can be seen in the table below, the percentage of restrictions on girls is similar in both neighborhoods, but restrictions on boys are higher in Gülabibey. 76,08% (35 out of 46) of girls are allowed to play at the doorstep in Buharaevler, very close to this response, 71,42% (10 out of 14) of girls are allowed to play there in the Gülabibey neighborhood. When we look at the percentage of boys, 93,75% (45 out of 48) of the boys from Buharaevler are allowed to play, while 66,66% (16 out of 24) of the boys from Gülabibey are allowed to play. In general, children from the Buharaevler neighborhood are allowed to play outside alone more and this notable difference is mainly related to the difference between neighborhoods about restrictions on boys.

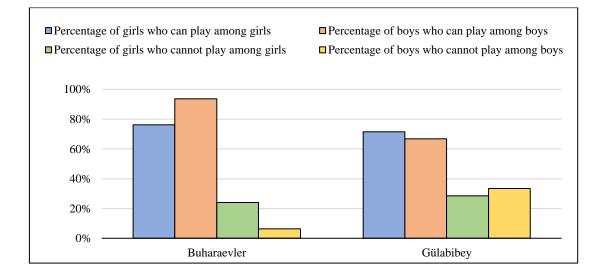


Figure 5. 15. Children Allowed to Play in Doorstep.

# 5.3.2. Frequency, Travel Mode, Destination, Accompany Status and Purpose of Children's Outdoor Usage

Parents who allow their children to play at the doorstep are asked for the frequency of this permission. Figure 5.16 presents the parent's responses. 12 out of 26 (46,15%) answer as every day from Gülabibey and 37 out of 80 (46,25%) answer as every day from Buharaevler neighborhood. Thus, parental permission of children to play at the doorstep is higher in Buharaevler, and the frequency of everyday play is almost equal in

the two neighborhoods. The difference between neighborhoods on the frequency of outdoor play appears in 3-4 times a week and 1-2 times a week option. When all the answers are analyzed together parents from Buharaevler permit their child more days per week than those in Gülabibey.

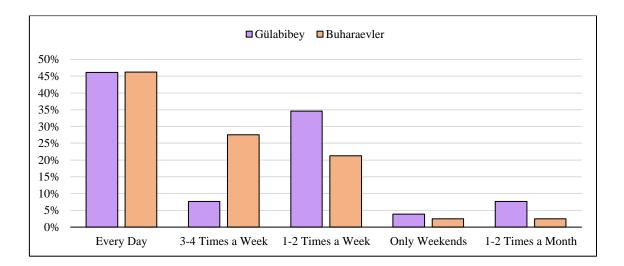


Figure 5. 16. Frequency of Outdoor Play

According to focus group interviews, most of the children from the Buharaevler neighborhood responded that they play outside every day. One girl (9) from Buharaevler stated:

"If I'm not out, then I'm sick."

On the other hand, children from Gülabibey say they go out 1-3 times a week. For both neighborhoods, the frequency of outside usage did not change based on the gender of the children. Children's responses about their frequency of outdoor play are consistent of parents' responses.

Pie charts below (See Figure 5.17.) show percentages of the responses for travel mode and company status of children according to trip diaries. Even if the reported activity that children are involved in bicycle according to focus group discussions, trip diary results show children from Buharaevler use bicycles more to reach places or just cycle around. Children from Gülabibey reach other places by car more than children from Buharaevler. When we look at the company status (See Figure 5.18), nearly two-thirds of

the children from Gülabibey are accompanied by adults or siblings. On the other hand, children from Buharaevler reach places alone or with a friend.

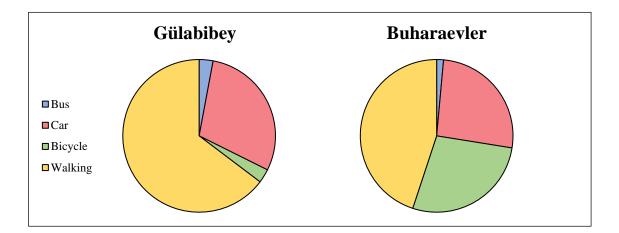


Figure 5. 17. Travel Mode of Children.

Children establish their daily relationships and interactions through play. Children's expectations, play behaviors, and needs are changing with age (Ghanbari-Azarneir et al., 2015; Kaymaz et al., 2017). Play is a way for children to learn how to cope with challenges, explore new things, and communicate with others. I asked the children "What do you do when you are out?" or "What kind of games do you play?". Responses show children spend their time mostly playing games together. These results are in agreement with Moore (1986) and Chawla's (1992) findings which showed group play and friendship are important for middle childhood place experience and preferences

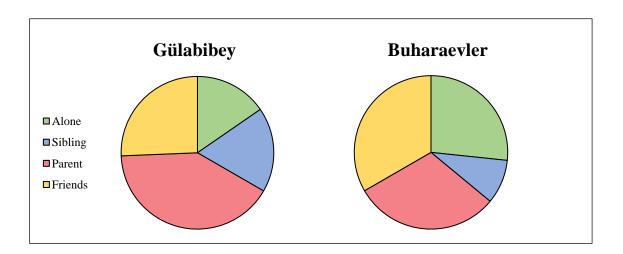


Figure 5. 18. Company Status of Children

To understand children's neighborhood usage, a question is asked to parents as "Where do you let your child go alone?". The question is generated in multiple choice and multiple response format. Figure 5.19 compares responses from the two neighborhoods in each location. The numbers of responses gathered for each location are compared with the total number of parents for each neighborhood to be able to compare. Grocery shops are the most picked location for each neighborhood. School and the garden of the house are following this answer for both neighborhoods is seen in the park response. 32,98% (31 out of 94) of parents from Buharaevler allow their children go to the park alone, nearly less than half of that percentage of the parents (15,79%- 6 out of 38) let their child to go to the park alone in the Gülabibey neighborhood. Also, 21,05% (8 out of 38) of parents from Gülabibey mark the option nowhere, whereas only 9,57% (9 out of 94) of parents from Buharaevler mark the same.

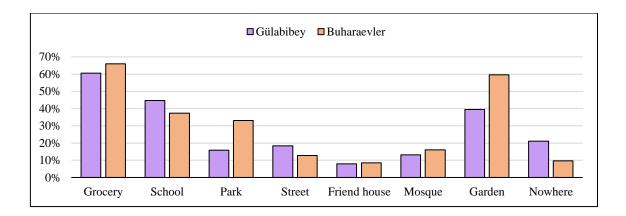


Figure 5. 19. Places That Children Allowed to Go.

As seen in Figure 4.5, the Buharaevler neighborhood has lots of parks in close distance. In the focus group interviews, children from the Buharaevler neighborhood say they use mostly parks and their gardens to play. They easily move between the places depending on their play preferences and moods. Some state they use empty lots as a play area. As empty lots provide a wide-open space, children use this space for ball games like football or volleyball. Some children even mention that they transform the area for play. One girl (10) said:

"There were bushes right next to us. We asked the building manager if he could cut it, as we wanted to play football there. They accepted this request and now we play there sometimes."

Children from this neighborhood also go to school for Quran courses in the summer. They mostly enjoy going there for socializing. Children from Buharaevler report multiple positive answers for the places that they visit and shifting between the places was the most common response among children from there.

Some children use the streets close to home for biking. Few children mention school as a play area since it has a wide garden providing them multiple play options like biking, ball games, etc. The only common response from both neighborhoods is being able to go to the grocery shop alone. When we analyze the Gülabibey neighborhood, the main play area is the garden of their home or friends' and relatives' garden. Most of the children illustrate their garden as a wide place. One boy (10) states;

"I play in our garden. Since our garden is a really huge place, it is like a park for me."

I adopted Kyttä et al.'s (2018) classification of behavior settings to analyze the places children reported in trip diary weekly. Table 5.2. shows how numbers are distributed for the places by land use, communality, and openness, along with the number of visits in both neighborhoods.

	OPENNESS			COMMUNALITY			LAND USE										
	INDOOR		OUTDOOR		CHILD- SPECIFIC		SHARED		COMMERCIAL		EDUCATIONAL		RECREATIONAL		OTHER		
	G	В	G	В	G	В	G	В	G	В	G	В	G	В	G	В	
Shopping Mall	3	1					3	1	3	1							12
Grocery	3	8					3	8	3	8							33
School store	1	2			1	2			1	2							9
Pharmacy	1						1		1								3
Relative	4	3					4	3							4	3	21
Mosque	2	5					2	5							2	5	21
Garden	2		2	24			1	24					2	24			79
Pool	1				2								2				5
Park			4	22	4	22							4	22			78
Course	1	1			1	1					1	1					6
School	1	17			1	17					1	17					54
	19	37	6	46	9	42	14	41	8	11	2	18	8	46	6	8	Σ

Table 5.2. Children's Destination Numbers According to Trip Diary

From table 5.2, a pie chart is created to understand percentages of place distribution in three categories (see Figure 5.20.). While children from Gülabibey mostly spend their time in indoor places, children from Buharaevler can use outdoor places more. Children from Buharaevler can spend more time in child-specific places compared to children from Gülabibey. More than half of the children from Buharaevler spend time in recreational areas, educational and commercial places follow. Only one-third of the children from Gülabibey spend time in recreational and commercial areas, other categories which consist of mosques and relatives are the third popular category among children.

I asked the children "What do you do when you are out?" or "What kind of games do you play?". Responses show children spend their time mostly playing games together. Activity categories according to the coded transcript are cycling, football, hide and seek, swinging, ball games, creative games (created by children themselves), chit chat, roller skating, and walking around. Activity preferences between children from the Gülabibey neighborhood vary according to gender. But there is no important difference according to the gender in the Buharaevler neighborhood.

Cycling was the most common activity in both neighborhoods. The majority of the children from Gülabibey who choose this answer are boys. When children talk about the activities they do, cycling is the only alternative for children from Gülabibey, same children also mention that they do not have a lot of friends around. One boy (10) states that "The streets are empty so I can cycle around. There are just a few cars because the main streets are not wide." And another boy (10) comments "The only good thing about this neighborhood is that you can go everywhere by bicycle." On the other hand, it is only one activity among others for the children from Buharaevler. For example, one girl (10) from Buharaevler says:

"Sometimes I get bored because there is no one around so I cycle."

Following cycling, football is the next most popular activity among children, almost two-thirds of the responses from boys also mention they arrange a place to play football. Hide and seek, creative games, swinging, and ball games are common activities for children of both genders. While responses for ball games are more from children from Gülabibey, responses for swinging are mostly from Buharaevler. These differences might be the result of differences between neighborhoods' physical characteristics.

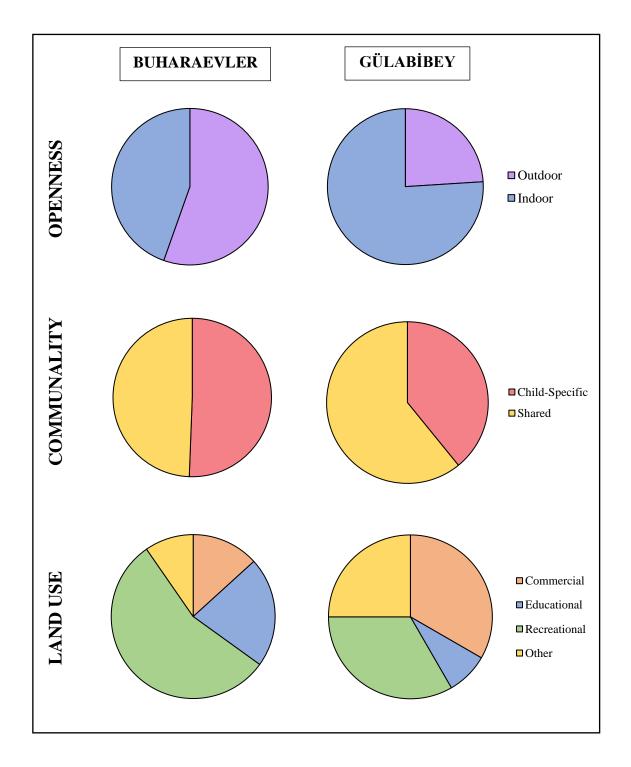


Figure 5. 20. Distribution of Land Use, Communality and Openness of Children's Destination.

Girls' outdoor usage is strikingly based on the social characteristics of the Gülabibey neighborhood. Chit-chat is the most common activity for the girls from Gülabibey. Most of the girls from this neighborhood use only home gardens for outdoor usage. A few girls from Gülabibey spend time roller-skating and walking around with a friend.

I ask children "With who are you going out or with whom do you spend time outside?". Respondents from Gülabibey mostly mention a company of older siblings when they move out from their garden. Apart from that, they play outside with relatives and a few friends. Most of the children from this neighborhood live close to a relative or in a family apartment. However, children from Buharaevler reach the activity places alone or with a company of a friend. The majority of the children from Buharaevler say they have a bunch of friends to play with.

According to trip diary responses, I created pie charts below (see Figure 5.21.) to show the distribution of activity types among children. There is an almost equal distribution of activity types between children from Buharaevler. However, children from Gülabibey are mostly involved in sedentary activities.

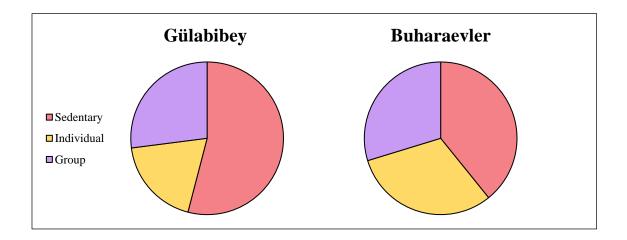


Figure 5. 21. Activity Types of Children

## 5.4. Intervention Areas for Child-Friendly Neighborhoods

This section discusses potential intervention areas according to results from the online parental survey, transcribed focus group interview, and children's drawings. First, parents' responses to the safer neighborhood are examined. Then, what kind of neighborhood children wants is discussed through children's drawings and verbal explanations.

#### 5.4.1. What Parents Want from Their Neighborhood

Increasing children's open space usage is connected to parents' feeling safe about those places. Therefore, an open-ended question is asked to parents as "What changes in your neighborhood would make you feel safer for your child to play and spend time outside?". Responses are categorized as it is seen in Figure 5.22. The most outstanding difference between neighborhoods is play areas. While 26,32% (10 out of 38) of the parents from Gülabibey mark for improvisation of play areas, only 11,7% (11 out of 94) of the parents from Buharaevler mark for the same. Traffic calming interventions are mentioned frequently in both neighborhoods. Security for open spaces is needed for both neighborhoods also. Although the factors that enable parents to find the neighborhood safer for their children are similar in both neighborhoods, their order of importance differs. Therefore, this survey shows the different priorities of the neighborhoods in order to understand the needs of the locals.

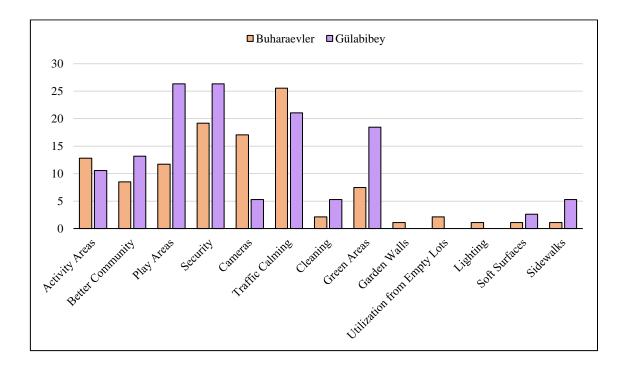


Figure 5. 22. Recommendations for Safer Neighborhood

### 5.4.2. What Children Want from Their Neighborhood

To the question of "what would be nice to change or to have in your neighborhood?" the children gave different responses according to which neighborhood they live in. Inadequate and unsuitable parking equipment for their age was something children from Buharaevler particularly wanted to change in their neighborhood. They say equipment in the park is for younger children, and they cannot fit in swings with security belts. In addition, they want a more adventurous park like the one which exists outside the city and can only be reached by car. Some children state they want places for different purposes like museums and activity centers.

Children from Gülabibey say they want parks close by. They are not able to use the parks because of the distance. Few girls say it would be nice to have street furniture for sitting close to home. When neighborhood qualities are low, children's demands remain at a more basic level like in the Gülabibey neighborhood.

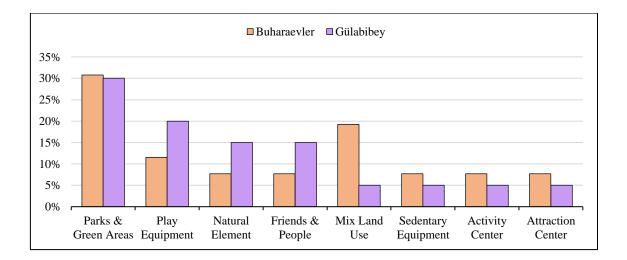


Figure 5. 23. Distribution of Themes from Children's Drawing According to Neighborhoods.

When we look at the themes emerging from children's drawings, there are also differences between the neighborhoods, in terms of children's wishes (See Figure 5.23). For this exercise, children are asked to draw their dream neighborhood. They are not limited to a type of drawing. After all children draw, they explain what they want. Children's drawings are coded under the themes that are shown in Figure 5.23. and Figure

5.24. This categorization is not based on only visual representations of children's drawings but also their verbal expressions in the second focus group interview about what they want in their neighborhood.

Figure 5.23 shows the distribution of themes according to neighborhoods. Since children from Gülabibey have few opportunities to play, play equipment and green areas are seen in most of the drawings. Children from Buharaevler appreciate mixed land use more since they have more neighborhood features to experience. Natural elements were more visible in drawings of children from Gülabibey (see Figure 5.26). Friends and people are mostly mentioned by children from the Gülabibey neighborhood (see Figure 5.25).

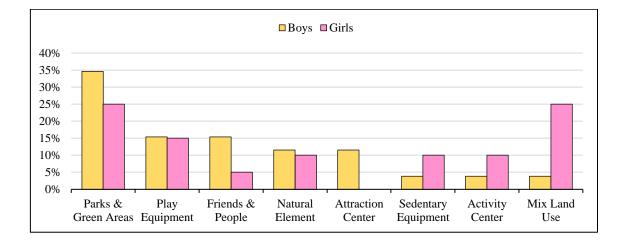


Figure 5. 24. Distribution of Themes from Children's Drawing According to Gender

When we look at the difference between drawings according to gender, mix land use is more prominent in girls' drawings (see Figure 5.24.). Figure 5.26 provides a good representation of this difference. Playground equipment was featured equally in the picture of children of all genders. Sedentary activities were more represented by girls. Similarly, during the focus group interviews, the girls frequently mentioned that they like to sit and chat with their friends during their time outdoors. Parks and green areas stand out in the paintings of boys. Unlike for girls, these areas consist of green areas related to sports such as football or buildings with wide yards. Apart from this, the attraction center category only appeared in boys' drawings. Attraction centers were represented as an area that attracts people from outside, like a big hotel (See Figure 5.25.).



Figure 5. 25. Drawing of a Boys, Buharaevler (left), Gülabibey (right).

The themes that come to the fore in children's drawings differ mostly on the basis of gender. At the same time, the girls' drawings express the neighborhood they want in more detail than the boys (see Figure 5.25. and Figure 5.26.). Differences by gender, which are prominent in this study, are not seen in other methods applied in this research. In general, in this study, green spaces and playground equipment are seen as the most prominent themes for the neighborhood to be child-friendly, regardless of neighborhood and gender.



Figure 5. 26. Drawing of a Girls, Buharaevler (left), Gülabibey (right)

## **CHAPTER 6**

## CONCLUSION

This study examines the effects of the physical and social environments on children's (9-10 years old) perception and usage of their neighborhood; besides, the parents' perception of safety in two neighborhoods with different physical structures. In order to investigate the individual and neighborhood-related factors affecting children's usage, a study was conducted with 22 children and 132 parents in Gülabibey and Buharaevler neighborhoods in the central district of Çorum by using quantitative and qualitative methods. The study aims to develop interventions for the design of child-friendly neighborhoods. This study is the first study in Çorum examining factors affecting children's usage and perception of their neighborhoods. Although the results of the study are similar to the literature in many respects, the use of different methods enabled the research questions to be examined in-depth. The data obtained in the study show the effects of neighborhood qualities on children's usage and perception of their is usage and perception of their study in the data obtained in the study show the effects of neighborhood qualities on children's usage and perception of their immediate environment and provide important results for developing planning decisions at the neighborhood level.

# • Child and Household Related Factors That Affect Children's Perception of Neighborhood Qualities

With this research, data on individual related factors affecting children's perception and usage of their neighborhoods were obtained. According to the age of the children, two findings emerge from this study. Firstly, between the ages of 9-10, children's neighborhood usage is limited to the distance close to home and observable by parents. Secondly, 9-10-year-old children prefer neighborhood features that allow mostly group activities instead of individual.

Gender is an important factor determining the permission of children's outdoor usage according to the literature. However, this study did not find a noticeable association between the gender of children and parental permission to use the local environment (J. E. Loebach and Gilliland 2016; 2014; Weller and Bruegel 2009). Besides, differences by gender are found in children's responses about neighborhood qualities. While girls mention mostly social factors of the neighborhood, boys often report their views on the physical characteristics of the neighborhood. However, the discourses of the children in the focus group work, the trip diary, and the drawings also lead to different results that complement each other. Boys do not complain as much as girls about the absence of friends during our interviews, but friends are more emphasized in boys' drawings. While friends are more prominent in the boys' drawings, the girls emphasize the importance of their friends more in their speeches. This can be the result of every child expressing themselves in different techniques and/or cultural diversity in upbringing children according to their gender.

The different methods used in this study provided complimentary and overlapping results in many respects. For example, while the things that children fear in the neighborhood are stranger danger and peer pressure in Gülabibey, it is stated as being kidnapped in Buharaevler. Likewise, while parents in Buharaevler talked about their fears about their child being kidnapped, parents in Gülabibey talked about dangerous strangers. As Martin and Wood (2014) claim children's perceptions are affected by their parents, children's reason for being afraid of strangers draw correspondence with parents. On the other hand, children's responses about their frequency of outdoor play are consistent with parents' responses. These differences and similarities among children's and parents' responses show the importance of choosing suitable methods for investigating the factors affecting the children's perception of the neighborhood.

# • Social Factors of the Neighborhood That Affect Children's Perception of Neighborhood Qualities

For both neighborhoods, social features of the neighborhood affect parents' and children's perception of the neighborhood more than physical features. The presence of other children is a very important factor for the outdoor usage of children. This was emphasized in the studies of Broberg, Kyttä, and Fagerholm (2013) and Hayball et al. (2018) who state that the presence of other children positively affects children's playing

outside. At the same time, Zhang and Li's (2012) study show that children between the ages of 9-12 prefer to play in social interaction more than younger ones.

The data show that close relationships in the neighborhood positively affect the perception of safety for both parents and children. According to parents' response on the reason of feeling safe when their child out, having a close relationship in the neighborhood was the striking answer for both neighborhoods similar to the results of Crawford et al. (2017) and Malone's (2003) studies. Although data from parental surveys show that parents in both neighborhoods find their neighborhood very safe, parents also report a high level of concern for strangers. These results reflect those of Faulkner et al. (2015), Crawford et al. (2017), Karsten (2005), Loebach and Gilliland (2010), and Malone (2013) who also found that stranger danger is the most important factor of parental restriction. However, fear of strangers is also a result of the "overprotective" parenting style produced under the influence of media, technological and cultural changes (Martin and Wood 2014; Crawford et al. 2017; Malone 2007).

According to the literature, residential density shows positive effects on children's outdoor usage, while the data obtained in this study show the opposite. The reason for this difference may be due to the fact that the children in the Buharaevler neighborhood, which has a low residential density, have more parking space. In this respect, the results of the study show that the parking area per child is an important factor that determines the outdoor usage of children.

# • Physical Factors of the Neighborhood That Affect Children's Perception of Neighborhood Qualities

With this study, data on the physical factors of the neighborhood that affect the children's usage and perception of the neighborhood were obtained. These factors are vehicle traffic, aesthetic features of the neighborhood, accessing neighborhood destinations, recreation areas, and play opportunities.

If we look at the factors that affect the parents' perception of safety physically, the cleanliness of the neighborhood, the presence of green areas, and vehicle traffic are seen as the first headings. Safety of the neighborhood is positively associated with the cleanliness of the neighborhood according to parental responses (Martin and Wood 2014). As the most outstanding answer among others, more than two-thirds of the parents from both neighborhoods marked vehicular traffic as a reason for not finding outside safe for

their children. This finding broadly supports the work of other studies such as Krishnamurthy's (2019), who emphasizes the importance of traffic calming implementation on parental safety perception. Another result found on mobility features of the neighborhood is the existence of bicycle paths. Data obtained from the trip diary of children in the Buharaevler neighborhood shows that the existence of bicycle paths encourages children to prefer a more active mode of transportation.

It is important for children to access the places in the neighborhood in terms of their development of environmental competence (Villanueva et al. 2012; Björklid and Nordström 2007). According to the survey results, one of the most important reasons why parents do not send their children to certain places in the neighborhood is distance. Schoolyard and in front of the house were considered the safest place among most of the parents (Carroll et al. 2015). This shows that parents feel safe where they can see their children.

The neighborhood perceptions of children living in Gülabibey and Buharaevler neighborhoods differ according to physical and social environmental characteristics. The playgrounds in the existing parks are seen by the children in both neighborhoods as boring and unsuitable for this age group of children. While children emphasize the importance of accessible green spaces for their desire to use in the neighborhood, they state that the opportunities offered by these areas and the presence of other children are the main variables that determine their use. If the parks, green areas, and playgrounds appear adequate to parents, children are allowed to play outdoor more by parents (Lambert et al. 2019). As it was stated in the literature, a lack of play options is associated with negative experiences in the Gülabibey neighborhood by children. On the other hand, children from Buharaevler reported that they enjoy neighborhood environments because it provides a diverse range of play opportunities (Chawla 1992; Hayball et al. 2018; Güroğlu and Önder 2016).

#### How Neighborhood Can Be a Child-Friendly Place for Children and Parents

While the safety perception of parents and children about the neighborhood determines the outdoor usage of children, the different features offered by the neighborhood also determine the outdoor usage of children in return. Key factors for creating a child-friendly neighborhood mentioned by parents from both neighborhoods are traffic calming interventions and securities for open spaces (Karsten and Vliet 2006).

On the other hand, the prominent themes in the children's paintings for child-friendly cities are open and green spaces, mix land uses, and more challenging park equipment.

Themes for child-friendly cities emerged from the drawings of children overlap with the other findings from previous studies (Malone 2013; Krishnamurthy 2019; Hayball et al. 2018; Derr, Corona, and Gülgönen 2019). Participant children to the study reported that they enjoy living close to mix land uses since it increases the social interaction. At the same time, similar to the results found by Ghanbari-Azarneir et al. (2015), colored spaces stand out in the children's paintings in this study.

Parents and children's responses to the question of how neighborhoods should be designed to be perceived as safer by parents and to meet children's needs and wishes are differentiated. As Elshater (2017) emphasizes since parents and children do not have the same expectations about the neighborhood features. Therefore, it is of great importance for designers to include the views of both children and parents at the local level, rather than implementing top-down urban policies (Gleeson and Sipe 2006).

The findings of this study have several practical implications. According to the results obtained in this thesis, the proposed urban design interventions are aimed at encouraging children's outdoor usage by considering the safety perception of the parents. The primary steps to be taken to create child-friendly areas at the neighborhood scale are:

- Designing playgrounds to include diverse and suitable equipment for different ages and usage
- o Reorganization of vacant lots to include play affordances
- Differentiation of park areas from each other to accommodate different play options such as adventurous and creative play
- o Implementation of street furniture
- o Improvement of sidewalk widths and conditions
- Regulation of land uses according to children's usage
- Establishing community bounding centers for sports and activities in neighborhoods
- Transforming areas associated with crime, such as graffiti, into street art through artistic projects involving children
- Designing neighborhood bicycle routes
- o Implementation of visible traffic signs and traffic calming interventions

Although the above-mentioned considerations include the urban design implementations that children and parents from both neighborhoods care about, the differences in the physical structure of the neighborhoods examined in the research require different interventions to be applied according to the local needs. The vacant lots, which are densely located in the Gülabibey neighborhood, have the potential to be transformed into parks and playgrounds. However, although there are sufficient park areas in the Buharaevler neighborhood, the play affordances offered by the parks do not meet the expectations of children in this age group. For this reason, the playground to be created in Gülabibey and the playground equipment in the existing parks in the Buharaevler can be arranged as more adventurous playgrounds that support the different usage of children.

Among the children participating in the research, girls emphasize the importance of sedentary areas where they could chit-chat and socialize. At the same time, parents say that they consider being able to see their children as the most important reason for feeling safe about their children 's usage of the outdoor environment. For this reason, street furniture suitable for both parents and children can be implemented on the streets.

Although mixed land use is appreciated by children, not every use is related to the positive experience. For this reason, land uses should be reconsidered with the needs and wishes of children. Sport and activity centers can be created for the children in the neighborhood to come together, have fun, learn, and produce. These neighborhood centers can positively affect the sense of safety by strengthening the social relations of adults through children. Things like graffiti, which are common in the Gülabibey neighborhood, negatively affect the perception of safety as it is associated with crime. These areas can be turned into street art projects that enable the participation of children living in that place.

Bicycle routes can be created within the neighborhood to support children's access to neighborhood destinations and their physical activity in general. In addition, traffic calming interventions can be implemented to increase the safety perception of children and parents. Implementation of visible traffic signals, curb extensions, pedestrian crossings can positively affect parents' safety perception and increase children's access to neighborhood destinations.

The findings from this study have shown important data revealing the experiences of children towards their daily spaces. The fact that the study was carried out with parents and children provides a more holistic understanding of children's usage of their immediate surroundings in order to take the necessary steps to create child-friendly urban areas. As seen in many studies and this study, areas designed by adults without the participation of children do not meet the needs and wishes of children. Therefore, it is of great importance for policymakers and urban designers to include children in childfriendly city studies.

#### • The Limitations of This Study

The limitations of this study, which is carried out in pandemic circumstances, are that it could not reach a sufficient number of answers to understand the relationship between the physical environment and children's neighborhood usage on certain issues. One of them is that there are not enough survey results to discuss the relationship between parents' demographic characteristics and children's outdoor usage. Notwithstanding these limitations, the study has many important results for understanding the neighborhood experience of children. The techniques used in the focus group interview with children contribute to the in-depth analysis of children's experiences by revealing data that complement and overlap with each other. However, it is suggested that different childfocused methods should be considered for online focus group studies.

As a result, although studies recognizing child subjectivity to understand children's perception of neighborhoods have increased in recent years, there are not enough studies in this area, especially in Turkey. This study aims to provide urban design interventions to create child-friendly neighborhoods by examining children's experiences in-depth about neighborhood qualities. The results of the study highlight the importance of child participation and neighborhood scale in designing child-friendly cities.

## REFERENCES

- Abatay, Gülce. 2019. Children's Active Commuting to Schools in Different Neighbourhoods: Design of Streets as Child Friendly Environments. Master's thesis, IZTECH.
- Basch, Charles E. 1987. "Focus Group Interview: An Underutilized Research Technique for Improving Theory and Practice in Health Education." *Health Education & Behavior* 14 (4): 411–48. https://doi.org/10.1177/109019818701400404.
- Björklid, Pia, and Maria Nordström. 2007. "Environmental Child-Friendliness: Collaboration and Future Research." *Children, Youth and Environments*, 17 (4): 388–401.
- Broberg, Anna, Marketta Kyttä, and Nora Fagerholm. 2013. "Child-Friendly Urban Structures: Bullerby Revisited." *Journal of Environmental Psychology* 35: 110–20. https://doi.org/10.1016/j.jenvp.2013.06.001.
- Campbell, Elizabeth, Julia R. Henly, Delbert S. Elliott, and Katherine Irwin. 2009. "Subjective Constructions of Neighborhood Boundaries: Lessons from a Qualitative Study of Four Neighborhoods." *Journal of Urban Affairs* 31 (4): 461–90. https://doi.org/10.1111/j.1467-9906.2009.00450.x.
- Çanakcioğlu, Nevşet Gül. 2015. "Can Cognitive Maps of Children Be Analysed by Space Syntax?" *A/Z ITU Journal of the Faculty of Architecture* 12 (3): 127–40.
- Carroll, Penelope, Karen Witten, Robin Kearns, and Phil Donovan. 2015. "Kids in the City: Children's Use and Experiences of Urban Neighbourhoods in Auckland, New Zealand." Journal of Urban Design 20 (4): 417–36. https://doi.org/10.1080/13574809.2015.1044504.
- Carver, Alison, Jenna R. Panter, Andrew P. Jones, and Esther M.F. van Sluijs. 2014. "Independent Mobility on the Journey to School: A Joint Cross-Sectional and Prospective Exploration of Social and Physical Environmental Influences." *Journal* of Transport and Health 1 (1): 25–32. https://doi.org/10.1016/j.jth.2013.12.003.
- Carver, Alison, Anna Timperio, and David Crawford. 2008. "Playing It Safe: The Influence of Neighbourhood Safety on Children's Physical Activity-A Review." *Health and Place* 14 (2): 217–27. https://doi.org/10.1016/j.healthplace.2007.06.004.
- Chaudhury, M., M. Oliver, H. Badland, N. Garrett, and K. Witten. 2017. "Using the Public Open Space Attributable Index Tool to Assess Children's Public Open Space Use and Access by Independent Mobility." *Children's Geographies* 15 (2): 193– 206. https://doi.org/10.1080/14733285.2016.1214684.
- Chawla, Louise. 1992. "Childhood Place Attachments." *Place Attachment*, 63-86. https://doi.org/10.1007/978-1-4684-8753-4\_4.

- Christensen, Pia, and Susana Cortés-Morales. 2015. *Movement, Mobilities and Journeys. Movement, Mobilities and Journeys*. https://doi.org/10.1007/978-981-4585-93-4.
- Cope, Meghan. 2008. "Patchwork Neighborhood: Children's Urban Geographies in Buffalo, New York." *Environment and Planning A* 40 (12): 2845–63. https://doi.org/10.1068/a40135.
- Crawford, S. B., S. K. Bennetts, N. J. Hackworth, J. Green, H. Graesser, A. R. Cooklin, J. Matthews, et al. 2017. "Worries, 'Weirdos', Neighborhoods and Knowing People: A Qualitative Study with Children and Parents Regarding Children's Independent Mobility." *Health and Place* 45 (March): 131–39. https://doi.org/10.1016/j.healthplace.2017.03.005.
- Curtis, Carey, Courtney Babb, and Doina Olaru. 2015. "Built Environment and Children's Travel to School." *Transport Policy* 42: 21–33. https://doi.org/10.1016/j.tranpol.2015.04.003.
- Davison, Kirsten Krahnstoever, and Catherine T. Lawson. 2006. "Do Attributes in the Physical Environment Influence Children's Physical Activity? A Review of the Literature." *International Journal of Behavioral Nutrition and Physical Activity* 3 (February). https://doi.org/10.1186/1479-5868-3-19.
- Derr, Victoria, Yolanda Corona, and Tuline Gülgönen. 2019. "Children's Perceptions of and Engagement in Urban Resilience in the United States and Mexico." *Journal of Planning Education and Research* 39 (1): 7–17. https://doi.org/10.1177/0739456X17723436.
- Ekawati, Sri Aliah. 2015. "Children Friendly Streets as Urban Playgrounds." *Procedia* - *Social and Behavioral Sciences* 179 (April): 94–108. https://doi.org/10.1016/j.sbspro.2015.02.413.
- Ellen, Ingrid Gould, and Margery Austin Turner. 1997. "Does Neighborhood Matter? Assessing Recent Evidence." *Housing Policy Debate* 8 (4): 833–66. https://doi.org/10.1080/10511482.1997.9521280.
- Elshater, Abeer. 2017. "What Can the Urban Designer Do for Children? Normative Principles of Child–Friendly Communities for Responsive Third Places." *Journal of Urban Design* 23 (3): 432–55. https://doi.org/10.1080/13574809.2017.1343086.
- Esteban-Cornejo, Irene, Jordan A. Carlson, Terry L. Conway, Kelli L. Cain, Brian E. Saelens, Lawrence D. Frank, Karen Glanz, Caterina G. Roman, and James F. Sallis. 2016. "Parental and Adolescent Perceptions of Neighborhood Safety Related to Adolescents' Physical Activity in Their Neighborhood." *Research Quarterly for Exercise and Sport* 87 (2): 191–99. https://doi.org/10.1080/02701367.2016.1153779.
- Faulkner, Guy, Raktim Mitra, Ron Buliung, Caroline Fusco, and Michelle Stone. 2015. "Children's Outdoor Playtime, Physical Activity, and Parental Perceptions of the Neighbourhood Environment." *International Journal of Play* 4 (1): 84–97. https://doi.org/10.1080/21594937.2015.1017303.

- Frank, Lawrence, Jacqueline Kerr, Jim Chapman, and James Sallis. 2007. "Urban Form Relationships with Walk Trip Frequency and Distance among Youth." *American Journal of Health Promotion* 21 (4 SUPPL.): 305–11. https://doi.org/10.4278/0890-1171-21.4s.305.
- Ghanbari-Azarneir, Sharareh, Sara Anbari, Seyed-Bagher Hosseini, and Seyed-Abbas Yazdanfar. 2015. "Identification of Child-Friendly Environments in Poor Neighborhoods." *Procedia - Social and Behavioral Sciences* 201 (February): 19–29. https://doi.org/10.1016/j.sbspro.2015.08.114.
- Giraldi, Laura, Elisabetta Benelli, Roberta Vita, Isabella Patti, Jurji Filieri, and Francesca Filippi. 2017. "Designing for the next Generation. Children Urban Design as a Strategic Method to Improve the Future in the Cities." *Design Journal* 20 (sup1): S3068–78. https://doi.org/10.1080/14606925.2017.1352814.
- Gleeson, Brendan, and Neil Sipe. 2006. "Creating Child Friendly Cities: Reinstating Kids in the City." *Creating Child Friendly Cities: Reinstating Kids in the City*, 1–164. https://doi.org/10.4324/9780203087176.
- Gokmen, Hikmet, and Burcu Gülay Taşçı. 2016. "Children's Views about Child Friendly City: A Case Study from Izmir." *MEGARON / Yıldız Technical University, Faculty of Architecture E-Journal* 11 (4): 469–82. https://doi.org/10.5505/megaron.2016.20981.
- Goux, Dominique, and Eric Maurin. 2006. "Close Neighbours Matter: Neighbourhood Effects on Early Performance at School." *Economic Journal* 117 (523): 1193–1215. https://doi.org/10.1111/j.1468-0297.2007.02079.x.
- Greene, Sheila, and Malcolm Hill. 2005. "Researching Children's Experience: Methods and Methodological Issues." *Greene and Hogan 2005*.
- Güroğlu, Merve, and Deniz Erinsel Önder. 2016. "Impacts of Different Physical Environments on Children'S Playing Field Perception." *IJASOS- International E-Journal of Advances in Social Sciences* 2 (4): 248. https://doi.org/10.18769/ijasos.50030.
- Hayball, Felicity, Paul McCrorie, Alison Kirk, Ann Marie Gibson, and Anne Ellaway. 2018. "Exploring Children's Perceptions of Their Local Environment in Relation to Time Spent Outside." *Children and Society* 32 (1): 14–26. https://doi.org/10.1111/chso.12217.
- Hemming, Peter J. 2008. "Mixing Qualitative Research Methods in Children's Geographies." *Area* 40 (2): 152–62. https://doi.org/10.1111/j.1475-4762.2008.00798.x.
- Hennessy, Eilis, and Caroline Heary. 2005. "Exploring Children's Views through Focus Groups." *In Greene and Hogan* 2005: 236–52.

- Hillman, Mayer, John Adams, and John Whitelegg. 1990. "One False Move: A Study of Children's Independent Mobility / Mayer Hillman, John Adams, John Whitelegg." *Policy Studies Unit*, no. January. https://ci.nii.ac.jp/naid/10004535145/en/.
- Holloway, Sarah L. 2014. "Changing Children's Geographies." *Children's Geographies* 12 (4): 377–92. https://doi.org/10.1080/14733285.2014.930414.
- Holloway, Sarah L., and Gill Valentine. 2000. "Spatiality and the New Social Studies of Childhood." *Sociology* 34 (4): 763–83. https://doi.org/10.1177/s0038038500000468.
- Holt, N. L., J. C. Spence, Z. L. Sehn, and N. Cutumisu. 2008. "Neighborhood and Developmental Differences in Children's Perceptions of Opportunities for Play and Physical Activity." *Health and Place* 14 (1): 2–14. https://doi.org/10.1016/j.healthplace.2007.03.002.
- Jack, Gordon. 2010. "Place Matters: The Significance of Place Attachments for Children's Well-Being." British Journal of Social Work 40 (3): 755–71. https://doi.org/10.1093/bjsw/bcn142.
- Karsten, L., and W. van Vliet. 2006. "Children in the City: Reclaiming the Street." *Children Youth and Environments* 16 (1): 151–67.
- Karsten, Lee. 2005. "It All Used to Be Better? Different Generations on Continuity and Change in Urban Children's Daily Use of Space." *Children's Geographies* 3 (3): 275–90. https://doi.org/10.1080/14733280500352912.
- Karsten, Lia. 2005. "It All Used to Be Better? Different Generations on Continuity and Change in Urban Children's Daily Use of Space." *Children's Geographies* 3 (3): 275–90. https://doi.org/10.1080/14733280500352912.
- Kingston, Beverly, Pamela Wridt, Louise Chawla, Willem Van Vliet, and Lois Brink. 2007. "Creating Child Friendly Cities: The Case of Denver, USA." Proceedings of the Institution of Civil Engineers: Municipal Engineer 160 (2): 97–102. https://doi.org/10.1680/muen.2007.160.2.97.
- Krishnamurthy, Sukanya. 2019. "Reclaiming Spaces: Child Inclusive Urban Design." *Cities & Health* 3 (1–2): 86–98. https://doi.org/10.1080/23748834.2019.1586327.
- Kyttä, Marketta. 2004. "The Extent of Children's Independent Mobility and the Number of Actualized Affordances as Criteria for Child-Friendly Environments." *Journal of Environmental Psychology* 24 (2): 179–98. https://doi.org/10.1016/S0272-4944(03)00073-2.
- Kyttä, Marketta, Melody Oliver, Erika Ikeda, Ehsan Ahmadi, Ichiro Omiya, and Tiina Laatikainen. 2018. "Children as Urbanites: Mapping the Affordances and Behavior Settings of Urban Environments for Finnish and Japanese Children." *Children's Geographies* 16 (3): 319–32. https://doi.org/10.1080/14733285.2018.1453923.

- Lambert, Amalie, Janae Vlaar, Susan Herrington, and Mariana Brussoni. 2019. "What Is the Relationship between the Neighbourhood Built Environment and Time Spent in Outdoor Play? A Systematic Review." *International Journal of Environmental Research and Public Health* 16 (20). https://doi.org/10.3390/ijerph16203840.
- Larsen, Kristian, Ron N. Buliung, and Guy E.J. Faulkner. 2015. "School Travel How the Built and Social Environment Relate to Children's Walking and Independent Mobility in the Greater Toronto and Hamilton Area, Ontario, Canada." *Transportation Research Record* 2513: 80–89. https://doi.org/10.3141/2513-10.
- Loebach, Janet E., and Jason Gilliland. 2016. "Neighbourhood Play on the Endangered List: Examining Patterns in Children's Local Activity and Mobility Using GPS Monitoring and Qualitative GIS." *Children's Geographies* 14 (5): 573–89. https://doi.org/10.1080/14733285.2016.1140126.
- Loebach, Janet E., and Jason A. Gilliland. 2014. "Free Range Kids? Using GPS-Derived Activity Spaces to Examine Children's Neighborhood Activity and Mobility." *Environment* and *Behavior* 48 (3): 421–53. https://doi.org/10.1177/0013916514543177.
- Loebach, Janet, and Jason Gilliland. 2010. "Child-Led Tours to Uncover Children's Perceptions and Use of Neighborhood Environments." *Children Youth and Environments* 20 (1): 52–90. http://www.jstor.org/stable/10.7721/chilyoutenvi.20.1.0052.
- Lopes, Frederico, Rita Cordovil, and Carlos Neto. 2018. "Independent Mobility and Social Affordances of Places for Urban Neighborhoods: A Youth-Friendly Perspective." *Frontiers in Psychology* 9 (NOV): 1–21. https://doi.org/10.3389/fpsyg.2018.02198.
- Loukaitou-Sideris, Anastasia, and Athanasios Sideris. 2010. "What Brings Children to the Park? Analysis and Measurement of the Variables Affecting Children's Use of Parks." *Journal of the American Planning Association* 76 (1): 89–107. https://doi.org/10.1080/01944360903418338.
- Mackett, Roger L. 2013. "Children's Travel Behaviour and Its Health Implications." *Transport Policy* 26 (February): 66–72. https://doi.org/10.1016/j.tranpol.2012.01.002.
- Malone, Karen. 2006. "United Nations: A Key Player in a Global Movement for Child Friendly Cities." Creating Child Friendly Cities: Reinstating Kids in the City, 13– 32. https://doi.org/10.4324/9780203087176.

2007. "The Bubble-Wrap Generation: Children Growing up in Walled Gardens."EnvironmentalEducationResearch13(4):513–27.https://doi.org/10.1080/13504620701581612.

——. 2011. "Changing Global Childhoods: The Impact on Children's Independent Mobility." *Global Studies of Childhood* 1 (3): 161–66. https://doi.org/10.2304/gsch.2011.1.3.161. —. 2013. "'The Future Lies in Our Hands': Children as Researchers and Environmental Change Agents in Designing a Child-Friendly Neighbourhood." *Local Environment* 18 (3): 372–95. https://doi.org/10.1080/13549839.2012.719020.

- —. 2015. "Children's Place Encounters: Place-Based Participatory Research to Design a Child-Friendly and Sustainable Urban Development." In *Geographies of Global Issues: Change and Threat*, edited by Nicola Ansell, Natascha Klocker, and Tracey Skelton, 1–30. Singapore: Springer Singapore. https://doi.org/10.1007/978-981-4585-95-8\_5-1.
- Marshall, David J. 2015. "We Have a Place to Play, but Someone Else Controls It': Girls' Mobility and Access to Space in a Palestinian Refugee Camp." *Global Studies of Childhood* 5 (2): 191–205. https://doi.org/10.1177/2043610615586105.
- Martin, Karen E., and Lisa J. Wood. 2014. "We Live Here Too"... What Makes a Child-Friendly Neighborhood? Wellbeing. Vol. II. https://doi.org/10.1002/9781118539415.wbwell061.
- Minh, Anita, Nazeem Muhajarine, Magdalena Janus, Marni Brownell, and Martin Guhn. 2017. "A Review of Neighborhood Effects and Early Child Development: How, Where, and for Whom, Do Neighborhoods Matter?" *Health and Place* 46 (April): 155–74. https://doi.org/10.1016/j.healthplace.2017.04.012.
- Mitchell, Christine A., Andrew F. Clark, and Jason A. Gilliland. 2016. "Built Environment Influences of Children's Physical Activity: Examining Differences by Neighbourhood Size and Sex." *International Journal of Environmental Research* and Public Health 13 (1). https://doi.org/10.3390/ijerph13010130.
- Mitra, Raktim, Guy EJ Faulkner, Ron N. Buliung, and Michelle R. Stone. 2014. "Do Parental Perceptions of the Neighbourhood Environment Influence Children's Independent Mobility? Evidence from Toronto, Canada." Urban Studies 51 (16): 3401–19. https://doi.org/10.1177/0042098013519140.
- Nansen, Bjorn, Lisa Gibbs, Colin MacDougall, Frank Vetere, Nicola J. Ross, and John McKendrick. 2015. "Children's Interdependent Mobility: Compositions, Collaborations and Compromises." *Children's Geographies* 13 (4): 467–81. https://doi.org/10.1080/14733285.2014.887813.
- O'Brien, Margaret, Deborah Jones, David Sloan, and Michael Rustin. 2000. "Children's Independent Spatial Mobility in the Urban Public Realm." *Childhood*. https://doi.org/10.1177/0907568200007003002.
- Pooley, Colin G., Jean Turnbull, and Mags Adams. 2005. "Travelling to School." In A Mobile Century? Changes in Everyday Mobility in Britain in the Twentieth Century. London: Routledge.
- Punch, Samantha. 2002. "Research with Children: The Same or Different from Research with Adults?" *Childhood* 9 (3): 321–41. https://doi.org/10.1177/0907568202009003045.

- Rasmussen, K, and S Smidt. 2003. "Children in the Neighbourhood. The Neighborhood in the Children, Dans Children in the City: Home, Neighborhood, and Community." PM Christensen and M. O'Brien, Editors.
- Schoeppe, Stephanie, Mitch J. Duncan, Hannah M. Badland, Stephanie Alley, Susan Williams, Amanda L. Rebar, and Corneel Vandelanotte. 2015. "Socio-Demographic Factors and Neighbourhood Social Cohesion Influence Adults' Willingness to Grant Children Greater Independent Mobility: A Cross-Sectional Study." *BMC Public Health* 15 (1): 1–8. https://doi.org/10.1186/s12889-015-2053-2.
- Simpson, Brian. 1997. "Towards the Participation of Children and Young People in Urban Planning and Design." *Urban Studies* 34 (5–6): 907–25. https://doi.org/10.1080/0042098975880.
- Spencer, C., and H. Woolley. 2000. "Children and the City: A Summary of Recent Environmental Psychology Research." *Child: Care, Health and Development* 26 (3): 181–98. https://doi.org/10.1046/j.1365-2214.2000.00125.x.
- Stewart, Orion. 2011. "Findings from Research on Active Transportation to School and Implications for Safe Routes to School Programs." *Journal of Planning Literature* 26 (2): 127–50. https://doi.org/10.1177/0885412210385911.
- Timperio, Anna, David Crawford, Amanda Telford, and Jo Salmon. 2004. "Perceptions about the Local Neighborhood and Walking and Cycling among Children." *Preventive Medicine* 38 (1): 39–47. https://doi.org/10.1016/j.ypmed.2003.09.026.
- Vaiou, Dina, and Rouli Lykogianni. 2006. "Women, Neighbourhoods and Everyday Life." Urban Studies 43 (4): 731–43. https://doi.org/10.1080/00420980600597434.
- Veitch, J., J. Salmon, and K. Ball. 2008. "Children's Active Free Play in Local Neighborhoods: A Behavioral Mapping Study." *Health Education Research* 23 (5): 870–79. https://doi.org/10.1093/her/cym074.
- Villanueva, Karen, Billie Giles-Corti, Max Bulsara, Gavin R. McCormack, Anna Timperio, Nick Middleton, Bridget Beesley, and Georgina Trapp. 2012. "How Far Do Children Travel from Their Homes? Exploring Children's Activity Spaces in Their Neighborhood." *Health and Place* 18 (2): 263–73. https://doi.org/10.1016/j.healthplace.2011.09.019.
- Villanueva, Karen, Billie Giles-Corti, Max Bulsara, Anna Timperio, Gavin McCormack, Bridget Beesley, Georgina Trapp, and Nicholas Middleton. 2012. "Where Do Children Travel to and What Local Opportunities Are Available? The Relationship Between Neighborhood Destinations and Children's Independent Mobility." *Environment and Behavior* 45 (6): 679–705. https://doi.org/10.1177/0013916512440705.
- Weller, Susie, and Irene Bruegel. 2009. "Children's 'place' in the Development of Neighbourhood Social Capital." Urban Studies 46 (3): 629–43. https://doi.org/10.1177/0042098008100998.

- Woolcock, Geoffrey, Brendan Gleeson, and Bill Randolph. 2010. "Urban Research and Child-Friendly Cities: A New Australian Outline." *Children's Geographies* 8 (2): 177–92. https://doi.org/10.1080/14733281003691426.
- Zeiher, H. 2003. "Shaping Daily Life in Urban Environments." In *Children in the City: Home, Neighbourhood and Community.*, edited by P. Christensen and M. O'Brien, 66–81. London: Routledge Falmers.
- Zhang, Heng, and Min-Jin Li. 2012. "Environmental Characteristics for Children's Activities in the Neighborhood." *Procedia Social and Behavioral Sciences* 38 (December 2010): 23–30. https://doi.org/10.1016/j.sbspro.2012.03.320.
- Ziaesaeidi, Parisa, and Debra Flanders Cushing. 2019. "The Social Sustainability of Neighbourhood-Schools: A Qualitative Study with Iranian Children and Youth about Their Neighbourhood Perceptions." *Local Environment* 24 (12): 1178–96. https://doi.org/10.1080/13549839.2019.1683724.
- Zinnecker, Juergen. 2001. Children in Young and Aging Societies: The Order of Generations and Models of Childhood in Comparative Perspective. Advances in Life Course Research. Vol. 6. https://doi.org/10.1016/S1040-2608(01)80006-X.

## **APPENDIX** A

## SURVEY QUESTIONS FOR PARENTS

## <u>Veliler İçin Ön Bilgi</u>

Bu anket çalışması İzmir Yüksek Teknoloji Enstitüsü, Şehir ve Bölge Planlama Bölümü'nden Doç.Dr.Fatma Şenol'un danışmanlığını yaptığı "Çocukların Mahalle Kullanımı: Çorum (Türkiye) Örneğinde Mahalle Olanaklılıkları" başlıklı Kentsel Tasarım Yüksek Lisans Tezi kapsamında gerçekleştirilmektedir. Projenin amacı, 8-10 yaş (3 ve 4. sınıf) çocukların mahalle kullanımını ve algılarını etkileyen sosyal ve fiziksel faktörleri, "olanaklılık" kuramıyla mahalle ölçeğinde inceleyerek, "çocuk dostu" kentsel çevreler oluşturmak için mahallelerdeki müdahale alanlarını belirlemek ve kentsel tasarım stratejileri geliştirmektir.

Bu anketi 3. ve 4. sınıf öğrencilerin velilerinin doldurması bu araştırmanın gerçekleşmesi için önemlidir. Eğer siz öğrenci velisi iseniz, bu anketi doldurmanız için yardımınızı rica ediyoruz. Bu çalışmaya katılmama veya katıldıktan sonra çalışmadan çıkma hakkında sahipsiniz. Anketi doldurmanız, araştırmaya katılım için onama verdiğiniz biçiminde yorumlanır. Anketteki soruları yanıtlarken kimsenin baskısı veya telkini altında olmayın. Vereceğiniz cevaplar yalnızca bilimsel araştırma amacıyla kullanılacak ve kimseyle paylaşılmayacaktır.

Katkılarınız ve ayırdığınız değerli zamanınız için teşekkür ederiz.

Aşağıdaki her bir soru için altında verilen cevaplardan size uygun olanı işaretlemeniz ve açıklama istenen sorulara düşüncelerinizi yazmanız yeterlidir.

## <u>"8-10" YAŞ ÖĞRENCİLERİN VELİLERİ İLE ANKET</u>

#### Bu kısım yaşadığınız ev ve mahalle ile ilgili genel soruları kapsamaktadır.

- 1. Yaşadığınız yeri en iyi tanımlayan ifadeyi seçiniz.
  - a. Bahçeli bir apartman dairesi
  - b. Bahçesi olmayan bir apartman dairesi
  - c. Bahçeli müstakil ev
  - d. Bahçeli paylaşımlı müstakil ev
  - e. Diğer

- 2. Yaşadığınız sokak ve mahalle adını yazabilir misiniz?
- 3. Oturduğunuz ev kendinize mi ait?
  ( ) Evet ( ) Hayır
- 4. Kaç yıldır Çorum'da yaşıyorsunuz?
- 5. Kaç yıldır bu mahallede yaşıyorsunuz?

6. Kaç yıldır şu anda oturduğunuz evde oturuyorsunuz?

\_\_\_\_\_

- 7. Mahallenizde komşuluk yaptığınız kişiler var mı?
  ( ) Evet ( ) Hayır
- 8. Bu komşularınızdan yaşadığınız binada veya evinizin yakınında yaşayan var mı?
  ( ) Evet ( ) Hayır
- 9. Bu mahalleyi seçme sebepleriniz neler? Uygun olan seçenekleri işaretleyin.
  - a. Nezih bir mahalle olması
  - b. Ekonomik olarak uygun olması
  - c. Akrabalar/Tanıdıklara yakın olması
  - d. Merkezi olması
  - e. Çocuklar için güvenli bir yer olması
  - f. Diğer (Lütfen belirtiniz):

#### Bu kısım çocuğunuz dış mekan kullanımı ile ilgili sorular içermektedir.

10. Çocuğunuz kapının önünde tek başına oyun oynayabilir mi?

() Evet () Hayır

- 11. Ne sıklıkla kapının önünde oynuyor?
  - a. Her gün
  - b. Haftada 1-2 gün
  - c. Haftada 3-4 gün
  - d. Yalnızca hafta sonları
  - e. Ayda 1-2 gün
- 12. Çocuğunuzun kapı önünde tek başına oynayamama sebepleri nelerdir?
- 13. Yaşadığınız mahalleyi çocuğunuz için güvenli buluyor musunuz?
  ( ) Evet ( )Kısmen Evet ( ) Kısmen Hayır ( ) Hayır
- 14. Çocuğunuzun hangi alanlara tek başına gitmesine izin verirsiniz? Birden fazla seçeneği işaretleyebilirsiniz.

- a. Bakkala
- b. Okula
- c. Parka
- d. Bahçeye
- e. Sokağa
- f. Mahalledeki arkadaşının evine
- g. Camiye/İbadethaneye
- h. Hiçbir yere
- i. Diğer (Lütfen belirtiniz): \_\_\_\_\_
- 15. Çocuğunuzun tek başına gitmesine izin vermediğiniz yerlere göndermeme sebepleriniz neler?

Birden fazla seçeneği işaretleyebilirsiniz.

- a. Ana yollardan geçmesinin gerekmesi
- b. Tehlikeli yabancıların olması
- c. Uzak olması
- d. Kaybolacağını düşünmem
- e. Diğer (Lütfen belirtiniz):

16. Mahallenizde çocuğunuzun özellikle bulunmamasını istediğiniz yerler var mıdır?

() Evet () Hayır

17. Neden izin vermediğinizi anlatır mısınız?

18. Mahallenizde çocuğunuzun bulunmasında sakınca görmediğiniz yerler var mıdır?

() Evet () Hayır

19. Neden buraları çocuğunuz için güvenli buluyorsunuz anlatır mısınız?

20. Aşağıdaki alanlara çocuğunuzun bulunması için güvenli bulup bulmadığınıza göre uygun rakamı yazın. ( 1.Çok güvenli - 2. Biraz güvenli - 3. Biraz güvensiz – 4. Çok güvensiz.) Aynı rakamı birden çok kullanabilirsiniz

- () Evimin önü
- () Sokağımız
- ( ) Okulunun bahçesi
- () Evimize yakın bir park
- 21. Aşağıdaki maddeleri çocuğunuz için mahallenizde yeterli görüp görmediğinize göre numaralandırın. (1. Çok yetersiz – 2. Biraz Yetersiz – 3. Biraz Yeterli – 4. Çok yeterli)

Aynı rakamı birden çok kullanabilirsiniz.

- () Oyun alanları
- () Kaldırımlar
- () Yeşil alanlar
- ( ) Mahallenin genel temizliği
- ( ) Etkinlikler
- ( ) Parklar
- 22. Aşağıdaki cümlelerden hangileri çocuğunuzu dışarı çıkarmama sebeplerinizi ifade ediyor?

Birden fazla seçeneği işaretleyebilirsiniz.

- a. Sokağımızdan çok hızlı araçlar geçiyor
- b. Parklarda çocuğumun ilgisini çeken oyuncaklar yok
- c. Mahallemde/sokakta çocuk yok
- d. Gidebileceği yerler çok uzakta
- e. Diğer ( Lütfen belirtiniz ):\_\_\_\_\_
- 23. Mahallenizde ne gibi değişiklikler yapılsa, çocuğunuzun dışarıda oyun oynaması ve vakit geçirmesi konusunda daha güvenli hissederdiniz? Anlatınız.

#### Bu kısım çocuğunuz ve sizinle/ailenizle ilgili genel soruları içermektedir.

- 24. İsminiz: \_\_\_\_\_
- 25. Araştırmaya katılan çocuğunuzun yaşı: \_\_\_\_\_
- 26. Araştırmaya katılan çocuğunuzun cinsiyeti: \_\_\_\_\_
- 27. Sizin yaşınız: \_\_\_\_\_
- 28. Medeni durumunuz:
  - a. Evli/ Eşiyle birlikte yaşıyor
  - b. Boşanmış/Ayrı yaşıyor
  - c. Eşini kaybetmiş

#### **29**. Eğitim durumunuz

- a. Okumadı
- b. İlkokul
- c. Ortaokul
- d. Lise
- e. Üniversite
- f. Yüksek Lisans
- g. Doktora
- **30**. Eşinizin eğitim durumu
  - a. Okumadı
  - b. İlkokul

- c. Ortaokul
- d. Lise
- e. Üniversite
- f. Yüksek Lisans
- g. Doktora

31. Kendinizi ait hissettiğiniz etnik kökeni seçiniz.

- a. Türk
- b. Kürt
- c. Arap
- d. Çerkez
- e. Diğer

32. Dini inancınız

- a. Sünni
- b. Alevi
- c. Yok
- d. Diğer

33. Evde kimler ücretli bir işte çalışıyor?

34. Eve giren aylık ortalama gelir miktarını seçiniz.

- a. 2.800 ve altı
- b. 2.801-5.000
- c. 5.001-7.500
- d. 7.500 ve üstü
- 35. Evde kaç kişi yaşıyor?

36. Arabanız var mı? ( ) Evet ( ) Hayır

37. Çocuğunuzun telefonu var mı?( ) Evet ( ) Hayır

Bu ankete katılarak araştırmamıza koyduğunuz katkı için teşekkür ederiz.

Ankete veya çalışmaya dair herhangi bir sorunuz veya isteğiniz olması durumunda +90xxx telefon numarasından Gizem Saraçer'e ulaşabilirsiniz.

# **APPENDIX B**

# NEIGHBORHOOD OBSERVATION CHECKLIST

Neighborhood Features	Field Observation Questions (1: features that increase children's outdoor usage, 0: decrease)						
	Is there any bicycle route? Yes:1 No:0						
Mobility Features	Is condition of the sidewalk good? Yes:1 No:0 (need of repair, width is less than 1.5m)						
	Is there any traffic calming implementation? Yes:1 No:0						
	Are there trees along the Street? Yes:1 No:0						
Aesthetic Features	Is maintaining of the buildings good? Yes:1 No:0						
	Are streets well kept? Yes:1 No:0						
	Is window level of the building in the street level? Yes:1 No:0						
Sense of	Are there any damaged public and private property? Yes:0 No:1						
Safety	Are there vacant lots? Yes:0 No:1						
	Are there parks in close proximity? Yes:1 No:0						
Land Use	Are there sport facilities? Yes:1 No:0						
	Is there only residential usage? Yes:0 No:1						
	Is there any play equipment suitable for different age group? Yes:1 No:0						
Play Options	Are there children playing outside? Yes:1 No:0						
	Are there open spaces for individual and group usage? Yes:1 No:0						

Table B. 1. Neighborhood Observation Checklist

## **APPENDIX C**

## ETHICAL APPROVAL FOR FIELDWORK

[5] tarihli [-83]-[-35]-[2000029] sayılı yazımız: 10.06.2021-E.17799



#### **İZMİR YÜKSEK TEKNOLOJİ ENSTİTÜSÜ** SOSYAL VE BEŞERİ BİLİMLER BİLİMSEL ARAŞTIRMA VE YAYIN ETİK KURULU

#### DEĞERLENDİRME FORMU

#### Çalışmanın Başlığı:

Children's Neighborhood Usage: Neighborhood Affordances in the Case of Çorum (Turkey) (Çocukların Mahallelerini Kullanımları: Çorum (Türkiye) Örneğinde Mahalle Olanaklılıkları)

Sorumlu Araştırmacının Adı Soyadı:

Gizem SARAÇER

Karar Tarihi:

28.05.2021

#### ETİK KURUL DEĞERLENDİRME SONUCU

✓ Kabul 🗆 Düzeltme Gerekli Düzeltmeler hakkındaki görüş, tavsiye 🗆 Ret

Ret ile ilgili gerekçe, görüş, tavsiye

#### BAŞKAN

Prof. Dr. İpek AKPINAR AKSUGÜR

ÜYE

ÜΥΕ

ÜYE

Prof. Dr. Başak İPEKOĞLU Prof. Dr. Yavuz DUVARCI

Prof. Dr. Fehmi DOĞAN

ÜYE

Prof. Dr. Zehra Tuğçe KAZANASMAZ

Prof. Dr. Ali Can DEMİRKESEN

ÜYE

Bu belge, güvenli elektronik imza ile imzalanmıştır.Evrak sorgulaması https://turkiye.gov.tr/ebd?eK=5030&eD=BSR311PZYZ&eS=17799 adresinden yapılabilir.

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			KARARLAR			
Tarih	İmzalayan	Unvan	Kurum / Bölüm	Yer	Dayanak	Tür
9.6.2021 15:23:44	ÍPEK AKPINAR AKSUGÜR			TR		Elektronik İmza
9.6.2021 10:39:12	ZEHRA TUĞÇE KAZANASMAZ			TR		Elektronik İmza
8.6.2021 09:50:25	ALI CAN DEMIRKESEN			TR		Elektronik İmza
8.6.2021 09:44:31	YAVUZ DUVARCI			TR		Elektronik İmza
7.6.2021	FEHMI DOĞAN			TR		Elektronik İmza
7.6.2021	BAŞAK İPEKOĞLU			TR		Elektronik İmza

## **APPENDIX D**

# PERMISSION TO CONDUCT STUDY IN PRIMARY SCHOOLS



T.C. ÇORUM VALİLIĞI İI Millî Eğîtim Müdürlüğü

11.06.2021

Sayı : E-43436584-605.01-26367038 Konu : Araştırma İzni (Gizem SARAÇER)

DAGITIM YERLERINE

İlgi : a) İzmir Yüksek Teknoloji Enstitüsü Rektörlüğünün (Mimarlık Fakültesi Dekanlığı) 28.05.2021 tarihli ve E-49014157-622.03-17554 sayılı yazısı.

b) Valilik Makammun 10.06.2021tarihli ve E-43436584-605.01-26300101 sayılı Olur'u.

İzmir Yüksek Teknoloji Enstitüsü Rektörlüğü Mimarlık Fakültesi Şehir ve Bölge Planlama Anabilim Dalı Şehir Tasarımı yüksek lisans programı öğrencisi Gizem SARAÇER'in "Factors Affecting Children's Neighborhood Usage: Neighborhood Affordances in The Case of Çorum (Turkey) " (Çocukların Mahalle Kullanımını Etkileyen Faktörler: Çorum (Türkiye) Örneğinde Mahalle Olanaklılıkları) başlıklı tez çalışmasına veri sağlamak maksadı ile İlimiz Merkez Başöğretmen Atatürk İlkokulu ile Bekir Aksoy İlkokul Müdürlüklerinde öğrenim gören öğrenci ve velilerinin katılımı ile hazırlanan arket ve görüşme formlarını online olarak uygulama isteği ilgi (a) yazı ve eklerinde belirtilmiştir.

Söz konusu çalışmanın yapılması ilgi (b) Olur ile uygun görülmüş olup; ekte gönderilmiştir.

Yapılacak olan çalışma ile ilgili;

 a) İzmir Yüksek Teknoloji Enstitüsü Rektörlüğünce (Mimarlık Fakültesi Dekanlığı) Bakanlığınız Yenilik ve Eğitim Teknolojileri Genel Müdürlüğü tarafından yayımlanan 2020/2 Araştırma Uygulama İzinleri Genelgesine istinaden; Yüksek Lisans Programı Öğrencisi Gizem SARAÇER'in tarnamlamış olduğu çalışmanın sonuç raporunun Müdürlüğümüze gönderilmesinin sağlanması;

b) Çalışmanın ekte gönderilen ilgi (b) olur ve diğer dokümanların içeriğine göre ilgili okul müdürlüklerince yapılmasının sağlarması hususunda;

Geregini arz ve rica ederim.

Abdullah KODEK II Milli Eğitim Müdürü

Ek: 1-İlgi (b) Olur (1 Sayfa) 2-Komisyon Tutanağı ve Diğer Dokümanlar (30 Sayfa)

Dağıtım : Gereği : İzmir Yüksek Teknoloji Enstitüsü Rektörlüğü Başöğretmen Atatürk İlkokulu Müdürlüğü Bekir Aksoy İlkokulu Müdürlüğü

Bilgi : Temel Eğitim Şube Müdürlüğü

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T.C. ÇORUM VALILİĞİ İl Milli Eğitim Müdürlüğü

Sayı ; E-43436584-605.01-26300101 Konu : Araştırma İzni (Gizem SARAÇER) 10.06.2021

#### VALİLİK MAKAMINA

İlgi : a) Milli Eğitim Bakanlığının (Yenilik ve Eğitim Teknolojileri Genel Müdürlüğü) 21.01.2020 tarihli ve 81576613-10.06.02-E.1563890 sayılı yazısı. (Genelge 2020/2)

b) Valilik Makamının 24.05.2021 tarihli ve E-43436584-605.99-25468945 sayılı Olur'u.

c) İzmir Yüksek Teknoloji Enstitüsü Rektörlüğünün (Mimarlık Fakültesi Dekanlığı) 28.05.2021

tarihli ve E-49014157-622.03-17554 sayılı yazısı.

Okul/Kurumlarımızda yapılacak Araştırma izinleri ilgi (a) Genelge hükümlerine göre yapılmaktadır.

İzmir Yüksek Teknoloji Enstitüsü Rektörlüğü Mimarlık Fakültesi Şehir ve Bölge Planlama Anabilim Dalı Şehir Tasanımı yüksek lisans programı öğrencisi Gizem SARAÇER'in "Factors Affecting Children's Neighborhood Usage: Neighborhood Affordances in The Case of Çorum (Turkey) "(Çocukların Mahalle Kullanımını Etkileyen Faktörler: Corum (Türkiye) Örneğinde Mahaile Olanaklılıkları) başlıklı tez çalışmasına veri sağlamak maksadı ile İlimiz Merkez Başöğretmen Atatürk İlkokulu ile Bekir Aksoy İlkokul Müdürlüklerinde öğrenim gören öğrenci ve velilerinin katılımı ile ilgi (c) yazı ekinde hazırlanan anket ve görüşme formlarını online olarak uygulama isteği ilgi (c) yazı ve eklerinde belirtilmiştir.

Söz konusu çalışma ilgi (b) Valilik Makamının Olur'unda görevli komisyon üyelerince değerlendirilmiş olup ; çalışmanın yapılması uygun görülmüştür.

Yapılacak olan Araştırma ve veri toplama araçlarının (anket, görüşme-gözlem formları) içeriğinin Türkiye Cumhuriyeti Anayasası, taraf olunan uluslararası anlaşmalar ve sözleşmeler başta olmak üzere, 6698 sayılı Kişisel Verilerin Korunnası Hakkındaki Kanun ile yürürlükte olan tüm yasal düzenlemeler ve Türk Millî Eğitiminin genel ve özel amaçlarına uygun olarak gönüllülük esası ve ekte gönderilen Komisyon Tutanağı içeriğinde belirtilen hususlar dahilinde yapılması Müdürlüğümüzce uygun görülmektedir.

Makamlarınızca da uygun görüldüğü takdirde; Olur'larınıza arz ederim.

Fatih TOPHAN Müdür a. Müdür Yardımcısı

OLUR

Abdullah KODEK Vali a. Il Milli Egitim Müdürü

Ek:

Edicton No E Posta: arg Kep Adresi

1-İlgi (a) Genelge (3 Sayfa) 2-İlgi (b) Olur (1 Sayfa) 3-İlgi (c) Yazı ve Çalışma Dokümanları (30 Sayfa)

Ikilgi İçin	Ali Oonan ONDER
Davan	Aragumaci
Faks	0 364 213 \$3 53
	Ikëgi lçin Davan



#### KOMİSYON TUTANAĞI

İlgi : a) Millî Eğitim Bakanlığının (Yenilik ve Eğitim Teknolojileri Genel Mudurlüğu) 21.01 2020 tarihli ve 81576613 10.06.02 E.1563890 sayılı yazısı. (Genelge 2020/2)

b) Valilik Makamının 24.05 2021 tarihli ve E-43436584-605.99-25468945 sayılı Olur'u.

 c) İzmir Yüksek Teknoloji Enstitüsü Rektörlüğünun (Mimarlık Fakultesi Dekanlığı) 28.05.2021 tarihli ve E-49014157-622.03-17554 sayılı yazısı.

İzmir Yüksek Teknoloji Enstitüsü Rektörlüğü Mimarlık Fakültesi Şehir ve Bolge Planlama Anabilim Dalı Şehir Tasanmı yüksek lisans programı öğrencisi Gizem SARAÇER'in "Factors Affecting Children's Neighborhood Usage: Neighborhood Affordances in The Case of Çorum (Turkey) " (Çocukların Mahalle Kullanımını Etkileyen Faktörler: Çorum (Türkiye) Örneğinde Mahalle Olanaklılıkları) başlıklı tez çalışmasına veri sağlamak maksadı ile İlimiz Merkez Başöğretmen Atatürx İlkokulu ile Bekir Aksoy İlkokul Müdürlüklerinde öğrenim gören öğrenci ve velilerinin katılımı ile ilgi (c) yazı ekinde hazırlanan anket ve görüşme formlarını online olarak uygulama isteği ilgi (c) yazı ve eklerinde belirtilmiştir.

Valilik Makamınca uygun görülen ilgi (b) olurda isimleri yazılı komisyon üyeleri, ilgi (c) yazı ekinde sunulan çalışma dokumanlarının değerlendirilmesini yapmak üzere, 08.06.2021 Salı günü saat 10.00'da Müdürlüğümüz AR-GE Biriminde toplandı.

Çalışma ile ilgili, ilgi (c) yazı ekinde ibraz edilen dokümanlar ilgi (a) Genelgede belirtilen hükümler çerçevesinde incelenmiş olup; çalışmanın aşağıda belirtilen hususlar dahilinde ilimiz Merkez Başöğretmen Atatürk İlkokulu ile Bekir Aksoy İlkokul Müdürlüklerinde eğitim-öğrenim gören öğrenci ve velilerinin katılımı ile online olarak yapılması uygun görülmüştür.

Bu bağlamda çalışmayı yapacak olan yüksek lisans öğrencisi Gizem SARAÇER ile çalışmanın. yapılacağı okul müdürlüklerince;

- a) Çalışmanın ilgi (a) Genelgede belirtilen hükümler çerçevesinde yapılması;
- b) Öğrenci ve velilerin söz konusu çalışmaya gönüllü olarak katılmalarının sağlanması ve öğrenciler için velilerinden gerekli yasıl izinlerin alınması;
- c) Çalışma ile ilgili ilgi (c) yazı ekinde ibraz edilen 12 (on iki) sayfadan oluşan çalışma dokümanları ile ilgi (c) yazı ekinde sunulan dilekçe içeriğinde belirtilen link adreslerindeki çalışma dokümanlarının bire bir aynı olması durumunda çalışmaya katılım sağlanması,
- d) Çalışma süresi başvuru yapılan eğitim-öğretim yılını kapsamasından dolayı, çalışmanın 2020-2021 eğitim-öğretim yılı içinde tamamlanması,

e) Tamamlanan çalışma ile ilgili, ilgi (a) Genelge içeriğinde belirtilip resmi yazımız ekinde gönderilecek olan "Araştırma İzni Başvuru Taahhütnamesi" ne istinaden hazırlanan sonuç raporunun 30 (otuz) gün içinde yüksek lisans programı öğrencisi Gizem SARAÇER tarafından Müdürlüğümüz Strateji Geliştirme Şube Müdürlüğüne gönderilmesi;

Söz konusu çalışmanın yukarıda belirtilen hususlar dahilinde yapılmasının uygun görüldüğü i gösteren komisyon tutanağı mür isken imza altına alınmıştır. 08.06.2021

atın TOPHAN Müdür Yardımcısı Başkan	Rab <del>w</del> OÖNDER Öğretmen Üye	Meindiğh Taha BAŞARAN Dêretmen Üye		
	50meyra 1 OZLU	Hafil AYDIN		
	Öğretmen Üye	Oğretmen Üye		